Terminal Evaluation – SLMP II

Sustainable Land Management Program to Combat Desertification in Pakistan

***a project of*:**
Government of Pakistan
United Nations Development Programme
Global Environment Facility

March 4, 2021

Prepared by:

Eugenia Katsigris, Managing Director, Parnon Group
Muhammad Ibrahim Khan, Forestry, NRM and Climate Change Expert

Basic Project/ Terminal Evaluation Information and Acknowledgements

Basic Project Information
Official Project Title: *Sustainable Land Management Program to Combat Desertification in Pakistan*
Abbreviated Project Title: *SLMP II*
Country: Pakistan
Region: Asia Pacific
UNDP PIMS# 4593
GEF Project ID# 4754
IP: Ministry of Climate Change (MoCC)
Other Project Partners: Provincial Planning and Development Departments (PP&DDs) of Punjab, KP, Balochistan, and Sindh

GEF Focal Area/ Strategic Program:
LD-2: 2.1 An enabling environment within the forest sector in drylands
2.2 Improved forest management in drylands
LD-3: 3.1 Enhanced cross-sectoral enabling environment for integrated landscape management
3.2 Integrated landscape management practices adopted by local communities

TE timeframe:
Consultations: Nov. 26, 2020 – Jan. 14, 2021
Draft report submission: Feb. 2, 2021
Final report submission: March 4, 2021

TE Team: Eugenia Katsigris and Muhammad Ibrahim Khan

Acknowledgements: The Terminal Evaluation (TE) Team is highly appreciative of the contributions of the many stakeholders who supported the TE through generous contributions of their time, effort, and insights for both virtual and in-person consultations. First, we thank the 22 CBO representatives across all four provinces who gave us insights into the results and experience with *SLMP II* in their villages. We thank the project team members who supported our work through responses to our information and document requests, as well as extensive interviews. We thank UNDP for its good guidance as well as insights. And we thank the many others, including formal IPs at the national and provincial levels, as well as the 14 district-level IPs that provided insights on their efforts in the field. We wish to thank all of those who spoke with us, most, but not all, of whom are listed in Annex 1, for sharing their insights on this very meaningful SLM initiative for Pakistan.

Contents

Acronyms, Abbreviations, and Definitions

10 BTTP – 10 Billion Tree Tsunami Program: A major tree planting program currently underway in Pakistan. It builds upon the now completed Billion Tree Tsunami Program (BTTP), which was a major tree planting program limited to KP Province.
ABAD - Agency for Barani Areas Development, under Punjab PP&DD.
ADP funds: Funds allocated at the provincial level in Pakistan.
APR – Annual Project Review
ARI – Agricultural Research Institute, under Punjab Agriculture Department
ARR – Assistant Resident Representative. In a UNDP Country Office, a senior management person who may lead a section focusing on a certain development area, such as energy and environment.
avg. – average
av km or ave. km – avenue kilometer. Unit of measure for shelterbelts.
BARI – Barani Agricultural Research Institute, under Punjab Agriculture Department
BRH – Bangkok Regional Hub. Asia-Pacific regional headquarters of UNDP.
BTTP – Billion Tree Tsunami Program. A major tree planting program in KP province, now complete. It was followed by the nationwide program 10 BTTP, which is currently underway.
CBO – Community Based Organization. Group with members from one or more nearby villages. For SLMP II, direct beneficiaries of SLM measures were CBO members.
CDR – Combined Delivery Report. A UNDP report that tracks project expenditures.
CER – CEO Endorsement Request. Along with ProDoc, a key document submitted to the GEF for approval of detailed design of a GEF project.
CO – country office. In this document, refers to UNDP Country Office.
CO_2 – carbon dioxide
DCC – Desertification Control Cell. Institutional structure pursued by SLMP II at federal and provincial levels.
DFO – District Forest Officer
DIK or D. I. Khan – Dera Ismail Khan. A district in KP Province.
DG – Director General
DLUP – District Land Use Plan: A type of district-level plan prepared by SLMP II.
DRR – Deputy Resident Representative. In a UNDP Country Office, a person one level below the Resident Representative in rank.
DSS – Decision Support System: A type of system that was to be prepared by the project. It would have used geographic based-data on weather, soil quality, etc. to make decisions on appropriate SLM measures for various locales.
EA – Executing Agency
EOP – end of project
FAO – United Nations Food and Agriculture Organization
FD – Forest Department
ft – feet. (Measure of length)
GEF – Global Environment Facility
GEF TF – GEF Trust Fund
GIS – Geographic Information System
GOP – Government of Pakistan
ha - hectare
HH - household
IA – Implementing Agency.
IP – Implementing Partner: Used in this document in two ways: (i) to refer to the main implementing partners of SLMP II at the federal level (MoCC) and provincial level (the PP&DDs) and (ii) to refer to

various entities in the provinces and districts responsible for carrying out SLMP II's SLM measures at the village level and/or for developing CBOs.
ISLMPP – Integrated Sustainable Land Management Provincial Policy. A type of policy pursued by SLMP II.
KP - Khyber Pakhtunkhwa Province. One of Pakistan's four provinces.
LD – Land Degradation. A key thematic area of GEF projects.
LOA – Letter of Agreement
LUP – land use plan
M - million
MoCC – Ministry of Climate Change. Federal-level IP for SLMP II.
M&E – monitoring and evaluation
M.Sc. – Masters of Science
MTR - Mid-Term Review. For full-sized UNDP-GEF projects, a required evaluation that takes place roughly half-way through the project. One of its major aims is to provide suggestions for course correction of the project, as needed.
NA – not available or not applicable
NAP – National Action Plan. In this document, refers to NAP to address LD.
NCU – National Coordination Unit. For SLMP II, there is an NCU at the federal level to coordinate implementation of the project overall. In addition, there are PCUs to coordinate work in each of the provinces.
NIM – National Implementation Modality. A modality of implementation of UNDP-GEF projects in which government counterparts lead implementation.
NPC – National Project Coordinator. In the case of SLMP II, the NPC leads the NCU and is employed by the project.
NPD – National Project Director. In the case of SLMP II, an official from MoCC responsible for day-to-day liaison and approvals with regard to the project.
NRM – natural resources management
NRSP – National Rural Support Program. A major NGO in Pakistan.
PA – Program Associate. Used in the recommendations table of the Executive Summary of this report to refer to UNDP Program Associate.
PC-1: Required Government of Pakistan document for a development project with government funding.
PC-4: Required Government of Pakistan document for conversion of a development project with government funding into a long-term, permanent government program.
PCOM – Project Cycle Operations Manual. Guidelines for project operation previously used by UNDP.
PCU – Provincial Coordination Unit. For SLMP II, a PCU was set up in each of the four provinces to coordinate implementation.
PIF – Project Information Form. A proposal to the GEF for a new project concept. Once approved, funds are set aside awaiting detailed project design and its subsequent clearance by the GEF.
PIR – Project Implementation Review. A required annual assessment of UNDP-GEF projects that takes place around July of each year.
PKR – Pakistan Rupees
PO – Program Officer. Used in the recommendations table of the Executive Summary of this report to refer to UNDP Program Officer.
PP&DD – Provincial Planning and Development Department. In the case of SLMP II, the PP&DDs are the key IPs of the project at the provincial level.
PPC – Provincial Project Coordinator. In the case of SLMP II, the PPC leads the respective PCU and is employed by the project.
PPD – Provincial Project Director. In the case of SLMP II, an official from the respective PP&DD responsible for day-to-day liaison and approvals with regard to the project.
PPP – public-private partnership

ProDoc – Project Document. In the case of UNDP-GEF projects, along with CER, a key document submitted to the GEF for approval of detailed design of a GEF project.
PSC – Project Steering Committee
PV – Photovoltaic. A type of solar energy that converts sunlight into electricity.
PVC – polyvinyl chloride
QA – Quality Assurance. A key function of UNDP with regard to UNDP-GEF projects.
RFP – Request for Proposals
RR – Resident Representative. In the case of UNDP, lead person in charge of a country office.
Rs – Pakistan Rupees
RTA – Regional Technical Advisor. A UNDP official based in one of UNDP's regional headquarters and providing technical guidance for UNDP's various projects from environmental vertical funds, such as the GEF and GCF.
SLM – sustainable land management
SLMP II - *Sustainable Land Management Program to Combat Desertification in Pakistan, Phase II*. This is the project that is evaluated in this TE Report.
SOP – standard operating procedures
sq ft – square feet. (Measure of area)
STAP – Scientific and Technical Advisory Review Panel. An independent advisory body of the GEF that provides technical review and comments on projects in their design phase.
SUV – sports utility vehicle
TA – technical assistance. In the case of development projects, this term may be used to differentiate between technical support ("TA") on areas such as policies, plans, capacity, institutions, etc. in contrast to direct investment into measures in the field and infrastructure.
TE – Terminal Evaluation. For UNDP-GEF projects, an evaluation that takes place around the time of project close.
TRAC - target for resource assignment from the core. UNDP's own core funding for projects.
TRDP – Thardeep Rural Development Program. And NGO and district-level IP of SLMP II in Tharparkar District, Sindh Province.
UNCCD – United Nations Convention to Combat Desertification
UNDP – United Nations Development Program
UNFPA – United Nations Population Fund
UNICEF – United Nations International Children's Emergency Fund
USD – US Dollars
VLUP – Village Land Use Plan: A type of plan prepared at the village level by SLMP II.
WCS – water conveyance system. One of the SLM measures of the project.
WO – Women's Organization. In the case of SLMP II, some villages or small groups of villages in KP set up WOs, with women members, alongside CBOs, with male members, for implementation of SLMP II.
x – times. (such as, 2x indicates "two times)
yr – year

Executive Summary

Project Information Table

Project Title	*Sustainable Land Management Program to Combat Desertification in Pakistan* ("*SLMP II*")		
UNDP Project ID (PIMS#)	4593	PIF Approval Date:	March 22, 2012
GEF Project ID (PMIS#)	4754	CEO Endorsement Date:	October 3, 2013
Atlas Business Unit Award #: Project ID:	00075848 00087529	ProDoc Signature Date (date project began):	May 5, 2015
Country:	Pakistan	Date project manager hired:	September 2015
Region:	Asia Pacific	Inception Workshop date:	November 15, 2015
Focal Area:	LD (Land Degradation)	Midterm Review completion date:	October 13, 2018
GEF Focal Area Strategic Objectives:	LD Objective 2 and LD Objective 3	Planned project closing date:	May 4, 2020 (*original closing date before extension granted*)
Trust Fund:	GEF TF	If revised, proposed op. closing date:	December 31, 2020 (*with 8 month extension included*)
Executing Agency/ Implementing Partner:	Ministry of Climate Change (MoCC)		
Other Execution Partners:	Provincial Planning and Development Departments (PP&DDs) of Punjab, KP, Balochistan, and Sindh		
NGO/ CBO Involvement	NRSP, TDRP as local IPs. CBOs of 192 villages as channel to beneficiaries.		
Private Sector Involvement	Limited to roles as vendors/ contractors.		

Brief Project Description: The GOP-UNDP-GEF project *Sustainable Land Management Program to Combat Desertification in Pakistan* ("*SLMP II*") was designed as a five-year project with the overall aim of scaling up initial pilot SLM (sustainable land management) measures in arid and semi-arid areas of the country implemented under an earlier phase, *SLMP I*. *SLMP II* was launched on May 5, 2015, with original close date of April 20, 2020, and close date with extension of Dec. 31, 2020. The project's core funds are GEF grant financing of USD 3,791,000. The project's committed co-financing totals USD16.630 M. Because the GOP and its provinces intended to provide co-financing directly to the project, a government development project document, known as a "PC-1," was prepared in addition to the standard UNDP-GEF ProDoc and CER. The project's three targeted outcomes are: (1) an enabling environment for SLM (including land use policy, desertification control cells in the federal and provincial governments, and capacity building); (2) tools for land use and implementation decisions (district and village land use plans and a decision support system (DSS)); (3) scale-up of on-the-ground SLM measures in villages in 14 selected districts across all four of Pakistan's provinces and financing mechanisms for replication.

SLMP II Evaluations Rating Table (*for rating scales, please see Annex 10*)

Evaluation Ratings:			
1. Monitoring and Evaluation	***Rating***	**2. IA& EA Execution**	***rating***
M&E design at entry	MU	Quality of UNDP Oversight	MS
M&E Plan Implementation	MU	Quality of Execution - Executing Agency	MS
Overall quality of M&E	MU	Overall quality of Implementation / Execution	MS
3. Assessment of Outcomes	**rating**	**4. Sustainability**	**Rating**
Relevance	R	Financial resources:	MU
Effectiveness	MS	Socio-political:	L
Efficiency	MS	Institutional framework and governance:	MU
Overall Project Outcome Rating	MS	Environmental:	L
		Overall likelihood of sustainability:	MU

Findings

Relevance: Given its pervasiveness and high level of negative impact on the populace, land degradation in drylands (arid and semi-arid areas) is of grave national concern to Pakistan. The SLM approach is highly relevant and highly needed in Pakistan to address this concern. At the same time as the SLM concept is highly relevant, it is in need of further definition to ensure it is carried out effectively and is recognized for its livelihood potential. (See Recommendation D1.)

Design: The project's overall design is well-constructed, calling for a needed multi-pronged approach to achieve long-term supportive systems for SLM, along with increased on-the-ground SLM examples. Some strategic indicators/ targets are problematic: Project lacks explanation of how land area targets are to be achieved. Some targets are unrealistic and some can be interpreted in multiple ways. Project design fails to describe activities that will lead to achievement of some of the "difficult" parts of targets.

Outcome 1: Policy, Institutional, and Capacity Building (Enabling Environment): The project has not achieved any policy adoptions. It prepared four draft ISLMPPs. There is no evidence of substantial work on these the past two years, though the draft policies are said to be with the PP&DDs for further review and some limited follow up is indicated. No permanent DCCs have been set up either at the federal or provincial level, though some efforts have been made in this direction. There seems to be a good, but by no means assured, chance that the relevant DCCs will later be regularized at the federal level and possibly in Punjab and KP. If any are regularized in the end, they are unlikely to have sufficiently high status to drive major spending and initiatives. The project carried out substantial capacity building at various levels reaching many persons, but did not achieve institutionalization of capacity building as targeted in project design. The project also prepared a number of knowledge and information dissemination products.

Outcome 2: Land Use Plans and DSS (Tools for Making Decisions on Land Use, SLM Measures): Findings in the field, such as conversion of rangeland to forest and widespread use of eucalyptus in degraded dryland areas, confirm the need for better land use planning. DLUPs are new to Pakistan. VLUPs have been done for forest villages, but are new to project areas. The project reports 7 DLUPs and 55 to 150 VLUPs. The TE Team asked to see all of these, but only received 2 DLUPs and 16 VLUPs. Findings suggest most DLUPs and VLUPs are being used. The project never commissioned preparation of a DSS, though did have a contractor prepare an RFP for one. The need to prepare a DSS was repeatedly raised to the project by UNDP, both in the annual PIRs and in other communications.

Outcome 3: On-the-Ground Measures and Financing (Scale-Up): Land area improved (directly and indirectly) via SLM measures and *SLMP II*-attributable replications is estimated by TE Team at 19,320 ha. Achievements in Punjab and KP were relatively higher (11,892 ha and 7,099 ha) and those in Balochistan and Sindh (182 ha and 147 ha), very low. Total area targeted by project is 800,000 ha, or, subtracting baseline values (for which justification was not provided), 469,400 ha. Punjab was the lead both in total area improved and in leveraging the full amount of provincial funds committed. KP stood out for having a greater variety of measures than Punjab, especially irrigation structures, which included some innovations, and lowest cost per ha. Strong results are that project villages numbered 193, close to the 200 mentioned in the outcome statement, and that 6.8% of HHs in project villages are benefiting directly from SLM measures. Weighted average increase in income for the 4,152 HHs involved in measures for which we had feedback on income improvement was Rs105,932/HH/yr. Rough estimate of income increase for these HHs is around 15%. Total beneficiaries, including indirect ones (those whose land was not directly improved, but benefit in other ways, such as access to water for livestock or reduced wind erosion on their land), are 13,127 HHs. Of these, 5,145 HHs are direct beneficiaries, with SLM measures carried out on their land. There were roughly 20 different SLM measures implemented, with varying levels of innovation. Field work identified some challenges with quality of on-the-ground work, such as fruit nurseries closed down after one season, lack of management plans for woodlots and shelterbelts, water-

hungry eucalyptus as the main species of non-orchard tree planted, clearcutting of shelterbelts and dry afforestation in one village, allocation of large amount of targets to single families in some places, CBO membership comprised of interest groups rather than village cross-section. While 44 SLM village funds were targeted, only two funds were set up and these were not specific for SLM measures.

Institutional/ Management Arrangements/ Implementation Strategy: IP issues: There was frequent turnover of NPD and PPD. Staffing issues: 29% to 33% of GEF funds were spent on staff salaries. Given that most targets were in the provinces, the heavy federal level staffing (with 6 GEF paid staff) and light provincial staffing (usually with just 1 GEF paid staff) was not effective. Implementation in the field: Punjab made the bold move to commission NRSP for CBO mobilization, a decision that appears to have paid off in terms of mobilization and distribution of benefits.

Adaptive Management: The project did not utilize adaptive management to address technical issues in the field, such as the widespread planting of eucalyptus, or unachieved policy and institutional targets. Review of action plan and follow up on MTR recommendations suggest that the real intent of the recommendations was for the most part not acted upon.

Expenditures and Co-Financing: By Dec. 31, 2020 (just before project close date), the project had spent 99% of GEF funds, or 3,745,483. Total GEF fund expenditures estimated to be attributed to staffing are USD1,053,739. Compared to allocation in signed version of ProDoc, Outcome 1's funding had been increased by 103% to USD1,363,829. The two areas included as strategic targets for Outcome 1 (policy and institutional aspects, for which targets were not achieved) are indicated to have a spend of only USD51,367. The provincial level of committed funding in the ProDoc of USD14 million is about double what was committed in the PC-1, the latter being used for reporting by the provinces. As compared to PC-1 provincial commitments, Punjab realized 97%, KP 46%, Balochistan 13% and Sindh 0%. Total realized co-financing is about 0.89 times GEF financing. Nevertheless, a real strength of the project (and ground-breaking for projects of this generation) is that the government co-financing was directly used for project activities rather than for vaguely similar endeavors.

M&E: Achievements in the category of land area improved were consistently reported as quite high and on track to meet targets, without real basis. July 2020 PIR reported total of 657,316 ha improved; our estimate is 19,320 ha. Basic reporting of achievements in the field was done, but the problematic aspect was achieving a reasonable extrapolation beyond areas directly treated. There was no provincial reporting of replication, which would be necessary for project to claim replication as the basis of some of its land area achievements. The MTR provided important observations and recommendations. Yet, about the high reported land area achievements, it simply stated, "Cannot be verified."

Gender: The project prepared a gender analysis and strategy after the MTR, but it was not utilized. The project put some positive effort on gender in the field. Yet, women seemed sidelined in terms of decision-making on major SLM measures and spending and instead were mostly relegated in decision-making to very low expenditure activities, some non-SLM, such as poultry. Women were sometimes members of CBOs (such as in Punjab) or members of a separate WO (such as in KP). Kana production and processing appear to create many opportunities for women in KP. Income benefits from grassland reseeding (via increased milk production) is said to be positive for women as they control revenues from milk sales.

TE Recommendations for *SLMP II* Project

#	Part 1 – Recommendations Specifically for UNDP	Responsible Entity	Timeframe
A	**Related to Implementation (*Extrapolated to Other Projects*)**	---	
A1	**For projects that target large land area or other dispersed achievements, institute bottom-up reporting requirements that facilitate true quality assurance by random spot checking**: (i) Design stage: Include explanation of "how the math works" so targets can be met.[1] (ii) Inception: Develop bottom-up template that allows reporting by dispersed unit, such as village-by-village, and shows "the math". (iii) QA: UNDP should check "the math" and make calls and site visits to randomly selected units.	(i) designer, (ii) project team, (iii) PO, PA	Ongoing/ as needed
A2	**Urgently revamp project staffing strategies to ensure cost-effective staffing structure and proactive, qualified personnel**: (i) If mainly provincial targets, minimize/ eliminate federal level staffing. (ii) Reduce share of staffing in total costs or ensure team carries out activities instead of contractors. (iii) Set up a CO task force on or, at minimum, hold discussions with CO leadership on options to ensure quality project staffing in a NIM environment. Consider and select actions from options such as: using PPG phase/funds for proactive early recruitment outreach; detailing recruiting procedures in ProDoc; adjustment to NIM agreement to ensure UNDP can carry out needed oversight of recruitment process; ensuring provincial IPs on board with provincial hires.	(i, ii) Designer, PO, IP; (iii) RR, DRR, ARR, PO, PA	(i), (ii), as needed; (iii) March – June 2021 for discussion/ task force and then as needed
A3	**Set up a CO task force on or, at minimum, hold discussions with CO leadership on options to finally achieve what has been an ongoing CO aim to get IPs to appoint long-term technical persons as NPDs and PPDs, or, minimally, as Additional NPDs and PPDs.** Consider and select actions from options such as: Specifying requirement that NPD and PPDs hold long-term technical position at IP in ProDoc; renegotiation of NIM agreements, if needed, to require technical persons in NPD and PPD roles, or, at minimum in Additional NPD and PPD roles.	RR, DRR, ARR, PO	March – June 2021
A4	**Require projects to develop and fill in templates that allow QA personnel to check and conduct high level expenditure analysis:** Templates should provide one table per outcome to show how spending breaks down among major activity. Salary expenditures should be shown separately from activities. QA personnel can use tables to identify when spending does not fit with major project targets.	DRR, ARR, PO, PA	March – June 2021 to develop system/ template, then ongoing
B	**Related to Outcome 1 and 2 (Policy, Institutional, and Planning) (*Extrapolated to Other Projects*)**		
B1	**Adopt new measures at the project design, inception, and implementation stages to maximize probability that challenging TA targets are achieved**: (i) Require designers to include activities for challenging portion of targets (e.g. policy adoption). (ii) Brief staff at inception that they should not implement the project to check off a list of activities, but instead to achieve the strategic indicator targets. Ensure targets are clear, easily understandable, and agreed upon. (iii) When project	ARR, PO, PA	Ongoing for all

[1] UNDP RTAs are now implementing an approach to project design that requires that land area targets are fully explained and fully justified. They are also putting attention on the issue that targets should be realistic, vis-à-vis the specific type of measures pursued. Thus, it seems like the design aspect of this recommendation is being addressed.

	repeatedly fails to work towards a key project target, require a detailed written explanation of why it is not viable or not worthwhile and hold a meeting.		
C	**Cross-Cutting – Related to all Outcomes (*Extrapolated to Other Projects and Possible Future SLM Work*)**	---	
C1	**Given that SLM is highly relevant to Pakistan and has potential to become a major national program, discuss whether SLM merits further UNDP involvement and, if so, consider ways that UNDP can continue to support SLM enabling environment through its other work or future, direct support**: (i) Meet to discuss whether the SLM concept merits further UNDP support. (ii) If so, consider linking still-to-be-completed SLM enabling environment work (policy, institutional, financing) to upcoming Food Security Project or 10 BTTP Project. (iii) If UNDP decides further support merited, consider high-level UNDP liaison to encourage policy/institutional results. (iv) If ii and iii successful, consider support in long-run of technical aspects of major national SLM program.	(i) ARR, PO, PA, RTA (ii) RTA, PO; (iii) RR, DRR, ARR (iv) RTA, PO	(i) March, 2021 (ii) and (iii) March – May 2021 (iv) 2022
C2	**Revisit approach to gender mainstreaming in projects with aim to ensure 50-50 benefits from projects for women; consider out-of-the box solutions as needed**: Consider: (1) Require-women-leaders path for all major village initiatives. (2) Ensure-high-benefits-for-women-by-nature-of-measure path. (3) Training-women-only-on-high-benefit-measures path. Note: If too challenging, consider piloting in select villages to start with.	Designers, RTA, PO, Gender Focal Point in CO	Overall gender strategy March – June 2021, then ongoing
#	**Part 2 – Recommendations for the Government and Others who May be Involved in Future Pakistan Dryland SLM Efforts**	**Responsible Entity**	**Timeframe**
D	**Cross-Cutting – Related to all Outcomes (*Specific to SLM*)**		
D1	**Clarify the definition and vision of SLM, in particular emphasizing the dual land improvement -poverty alleviation potential proven by income achievements of SLMP II:** Include 4 prongs: (a) multiple initiatives of different types/ different sectors as relevant in each village; (b) avoidance of ecologically inappropriate land conversion; (c) focus on both conserving water and replenishing the water table; and (d) integration of all of the foregoing with substantial income generation	MoCC, PP&DDs, NCU, PCUs, DCCs	March - June 2021
D2	**Consider SLM's potential to become a major national combined land improvement – poverty alleviation program and determine what is needed to get there**: Determine what steps are needed to eventually launch SLM as a major national combined land improvement – poverty alleviation program.	MoCC, PP&DDs, NCU, PCUs, DCCs	March – June 2021
E	**Related to Outcome 3 (On-the-Ground Implementation of SLM Measures) *(Specific to SLM)***		
E1	**Address technical issues identified in this report to improve SLM for maximum benefits and sustainability in the field**: (i) Ensure multiple measures in each village. (ii) Develop metrics to assess "surrounding land area improved" and use to select measures strategically. (iii) Ensure water table recharging is taking place in areas that need it. (iv) Ensure high water consuming trees and plants are not part of SLM program.[2] (v) Ensure non-ecological land conversion (such as conversion of rangelands to trees	PP&DDs, PCUs, DCCs, SLM IPs	Initial work on systems for (ii) and (viii) March – June 2021, then

[2] In terms of UNDP, the agency is now using an IAS (invasive alien species) screening for its projects during the design stage to avoid situations such as use of eucalyptus in dry areas.

	without grass) is not allowed to happen. (vi) Ensure that all measures that need management plans have them. (vii) Develop marketing support for fruit nurseries and sale or orchard products. (viii) Institute follow up monitoring and technical support for sustainability. (ix) Give good attention to grassland reseeding, which is highly needed. (x) If measures are already being carried out by 10 BTTP in the same area as intended for SLM, ensure these are SLM compliant and integrate into SLM work rather than duplicate.		ongoing for all
E2	**Consider alternatives for site selection to ensure that the combination of land improvement results and income benefits to those who need them are rationally maximized**: (i) Consider cluster approach to SLM village selection, so land improvements synergized across larger area (ii) Consider/ discuss whether efforts should focus on dryland areas formerly productive and now degraded or on areas that have been barren/ desert for over 100 years.	MoCC, PP&DDs, PCUs, DCCs, SLM IPs	March – May 2021
E3	**Go beyond interest-group-based CBOs and spread the benefits equitably out to those who need it**,	PP&DDs, PCUs, DCCs, SLM IPs	Ongoing
E4	**Stimulate replication via promotion and SLM financing mechanisms, such as revolving loan funds.**	MoCC, PP&DDs, PCUs, DCCs	Initial work March – June 2021, then ongoing
F	**Related to Outcomes 1 and 2 (Policy, Institutional, and Planning) (*Specific to SLM*)**		
F1	**Take the next steps necessary, including high-level actions, to realize policy adoption, DCC regularization, and implementation of quality LUPs.**	MoCC, PP&DDs, PCUs, DCCs	March – June 2021
G	**Related to Implementation (*Specific to SLM*)**		
G1	**Carry out well-documented and scientific monitoring of SLM land area improved and maximize return on investment**: (i) As in Rec 1, develop a village-by-village bottom up approach so that spot checking can be effective. Reporting should include both "additional land area improved," replication directly attributable to SLM, income benefits, and number of HHs benefiting directly and indirectly. (ii) SLM implementation should maintain data on percentage of total funds going to SLM measures in the field and make efforts to maximize this percentage.	PCUs, DCCs	March – June 2021 to develop system, then ongoing
#	**Part 3 – Recommendations for the Government in Future Cooperation with UNDP**	**Responsible Entity**	**Timeframe**
H1	**Improve selection process for project staff and for NPDs/PPDs of UNDP projects:** (i) Ensure the hiring process for project staff is highly transparent and focuses on hiring persons that have both the right expertise and a track record of working hard and delivering. (ii) For hiring provincial project staff, ensure that provincial IP plays a strong role in decision-making. (iii) For appointment of NPDs and PPDs consider prioritizing the appointment of technical personnel that are with the IP for the long-term and can offer technical guidance instead of civil service officials who often change positions and agencies.	MoCC and other national level IPs of UNDP projects. PP&DDs and other provincial level IPs of UNDP Projects.	Ongoing, but especially as new projects are designed and launched

1. Introduction to the Terminal Evaluation

This section presents the purpose, methodology, and limitations of the *SLMP II* Terminal Evaluation (TE), which is the topic of this report. It also introduces the content of this report.

Purpose of TE: The purpose of the TE is two-fold: (1) Provide information on and assessment of the project, especially its progress towards targeted results, the sustainability of results, and the cost effectiveness of fund utilization. This is for the purpose of transparency, so that all who are interested can know how funds have been spent. It will include identification of achievements and strengths as well as challenges and weaknesses, which will in turn contribute to the second key purpose, which follows. (2) Identify lessons and recommendations for GOP, UNDP, and other interested parties. The lessons and associated recommendations will advise on: (a) Priorities for enhancing, sustaining, replicating, and building upon project results and benefits as GOP and the Governments of Punjab, KP, Balochistan, and Sindh continue with their SLM work. (b) Ways to better design and implement future projects, based on the lessons (both strengths and challenges) of *SLMP II* as UNDP continues its portfolio of development projects in Pakistan and around the world.

Methodology of TE: Our TE work includes both quantitative and qualitative methods and covers most of the methodologies enumerated in *Guidance for Conducting Terminal Evaluations of UNDP-Supported GEF-Financed Projects* (2020). In particular, the TE work integrates three key methodologies: (1) extensive stakeholder consultations and site visits, including interviews with around 60 individuals or organizations and site visits in two provinces to five districts and around 15 villages; (2) document review; and (3) special information requests and related analysis.

Annex 1 includes a full list of organizations and individuals interviewed, along with site visits, and the timeline for all. Due to the Covid-19 crisis, many of the mission interviews were conducted virtually. The site visits to Punjab and KP were conducted over a one-week period by the national consultant. In addition to the face-to-face Punjab and KP village interviews carried out during that period, the international consultant and national consultant together were able to conduct telephone interviews with four CBOs in Balochistan and two in Sindh. One of the Balochistan interviews included a virtual site visit using a video call application. In order to ensure that findings were representative of the full range of villages indicated to have SLMP II work in them, the TE Team added some randomly selected villages to those suggested for visits or calls by the project team. Thus, in each of the three Punjab and two KP districts, one randomly selected village was visited. Further, one of the Balochistan villages and both of the two Sindh villages were randomly selected from lists of CBO contact information provided by the relevant PCUs.

Stakeholders interviewed represent a range of organizations and roles, though our top priority was interviewing village beneficiaries of sustainable land management (SLM) interventions to understand if the project was really achieving what it set out to do. In all, interviews with 22 different villages were conducted. In addition, we interviewed a range of persons involved with different aspects of the project. In particular, we interviewed 14 of the district-level implementing partners (IPs) responsible for carrying out SLM measures in project villages. We also interviewed much of the large project team (including both federal and provincial level staff), UNDP team members involved with the project, and national and provincial level IPs.

Three aspects of our information gathering and analysis approach are worth noting. First, because we did not find there to be a good explanation of the project's claimed achievements vis-à-vis its land improvement targets, we prepared detailed bottom-up (village-by-village) indicator information requests for each province. We combined what they shared with us with our detailed findings from the field interviews and telephone interviews with villagers to develop bottom-up estimates (based on village-by-

village achievements) of the project's total land area achievements. This work was quite labor intensive. While it includes many guesstimates, we believe it provides a good rough idea of the project's land area achievements.

Second, we created analysis sheets and tables to collate our different interview findings by topic. In particular, for we created large village interview and district-level IP tables that included all the responses of interviews in these categories, with a different topic in each column. This approach facilitated analysis that considered the whole "data set" of our 22 village interviews and our 14 district-level IP interviews.

Third, we developed special information requests regarding project expenditures. We asked for lists of contracts and LOAs and also asked the NCU to fill in tables we provided of expenditures on major activity areas by outcome. These items helped us answer the question of "where has the money gone," which can be difficult to understand from looking only at CDRs or annual work plans. We also asked the provinces to provide information on the breakdown of their expenditures, both by outcome and by funding source. This, as well as some of our own analysis of land area achievements (in conjunction with cost estimates from benchmarks noted in village interviews), helped us to assess what proportion of provincially-spent funds were going to SLM field measures versus other activities. The provincial responses also helped us understand how much government co-financing had been spent.

Limitations of TE: *SLMP II* is an extensive project implemented in almost 200 villages with a large number of parties involved in implementation. A basic challenge, then, was absorbing the amount of information available and talking to as many stakeholders (especially villagers) as possible to get a good enough representation for an accurate picture of overall achievement. We also faced special challenges in assessing the project indicators. Our requests for bottom-up indicator information were met with varying levels of responsiveness, so that, as noted, a good deal of work went into coming up with estimates of real achievements in the field. It was also challenging to get a full view of expenditures. And, the simple issue of exchange rate changes over the period of the project added some challenge in accurately assessing co-financing. Some documents that we requested were not made available to us (such as the full set of land use plans or the land use policy frameworks), making it difficult to assess related achievements and decisions.

Lastly, as noted, the TE mission was conducted during the period of the Covid-19 pandemic (Dec. 2020), which presented some challenges. Video meetings and phone call interviews were conducted with many stakeholders and deemed to be quite effective. Yet, the pandemic situation meant that the international consultant could not travel to Pakistan and that the national consultant's field trip was limited to one week and just two of the four provinces. The main beneficiaries of the project are the villagers; and the best way to determine Outcome 3 results is to visit the field and interview them. That the team, in the end, was able to conduct 22 village interviews, 15 in person, contributed strongly to the success of the TE.

Structure of TE report: A summary of the main findings and recommendations of the TE can be found in the Executive Summary at the beginning of the report. The main text begins with two preliminary sections, this one, Section 1, on TE objectives, methodology, and limitations, and the following one, Section 2, presenting background on the project and country context. Section 3 presents assessment of project relevance and project design. Section 4 is our assessment of progress towards the strategic project targets, including a summary "traffic light" table (*Progress towards Results Matrix*), the detailed version of which comprises Annex 2. Sections 5 to 7 are the "results/ efficacy" sections, each covering one of the project outcomes and expanding upon some of the content of the "traffic light table." Section 8 summarizes findings on sustainability and Section 9 covers various aspects of implementation. Sub-section 9.3, which covers expenditures and co-financing, is of particular note. Section 10 covers conclusions and recommendations. The TE Report has 20 annexes, as listed in the Table of Contents. The first 13 are provided as a part of this document and the other 7 are provided in separate documents. Of particular interest: (i) Annex 1 provides a detailed listing of organizations and persons consulted and site

visits. (ii) Annex 2 provides a full version of the *Progress towards Results Matrix*, explaining in detail our findings regarding each main targeted achievement, as well as our rationale for effectiveness ratings of the objective and each of the outcomes. (iii) Annex 3 provides additional TE findings in the areas of design, overall results, and implementation. (iv) Annex 4 provides rough, unofficial activity-wise expenditure information used in the cost effectiveness ("efficiency") analysis of Section 9.3. (v) Annexes 16, 17, 18, and 19 (combined in a separate document) provide our extensive village-by-village, bottom-up analysis of the project's land area improvement achievements. These annexes are provided in summary form in this document as Annexes 6, 7, 8, and 9, respectively.

2. Project Description and Background Context

Before moving to the TE team's assessment of the project in subsequent sections, in this section we provide background on or related to the project, including: (i) a description of the project's basic design; (ii) the background context vis-à-vis problems addressed by the project /areas in which the project works; (iii) brief project timeline; (iv) project implementation arrangements; and (v) main stakeholders.

2.1 Project Basic Design

Basic information: The GOP-UNDP-GEF project *Sustainable Land Management Program to Combat Desertification in Pakistan* ("SLMP II" or "Pakistan SLMP II") was designed as a five-year project with the overall aim of scaling up initial pilot SLM (sustainable land management) measures in arid and semi-arid areas of the country. SLMP II is designed to build upon the pilots and other achievements of an earlier project, Pakistan SLMP I, carried out from May 2007 to April 2014. SLMP II was launched on May 5, 2015. The original close date was to be April 20, 2020, though this was extended out to Dec. 31, 2020. The project's core funds are GEF grant financing of USD 3,791,000. The project's committed co-financing totals USD16.630 M, including: USD14 M combined contribution of the governments of Pakistan's four provinces; USD1 M from the federal government; USD1.5 M from UNDP; and USD130,000 from other donors. Because the GOP and its provinces intended to provide co-financing directly to the project, a government development project document, known as a "PC-1," was prepared in addition to the standard UNDP-GEF Project Document (ProDoc) and CEO Endorsement Request (CER).

Project locations: Geographically, the project's field measures are to be carried out in 14 dryland districts of Pakistan across its four provinces. These include five districts in Balochistan Province (Pishin, Qilah Saifullah, Mastung, Kech, and Lasbella); two districts in KP Province (Lakki Marwat and D.I. Khan); four districts in Punjab Province (Chakwal, Bhakkar, Khushab, and Layyah); and three districts in Sindh Province (Tharparkar, Umerkot, and Sanghar). A combination of poverty/ need and arid environment was considered in district selection.

Project objectives and outcomes – basic design: The project objective as stated in the CER's Project Framework table is: "Sustainable land and natural resource management in the arid and semi-arid regions of Pakistan alleviates environmental degradation and maintains the continuous flow of ecosystem services, while increasing resilience to climate change." The project has three targeted outcomes. Our abbreviated titles for each, followed by GEF budget allocation as in the signed ProDoc, brief description, and the official outcome statement as in the CER's Project Framework table[3], and are given below:

[3] The outcome statements from the CER's Table IB ("Project Framework") are longer and include more elaboration than the outcomes statements included in the ProDoc and its Strategic Results Framework. We chose to use the CER's more elaborated versions in order to offer more insights into the designers' intentions.

Outcome 1. Enabling Environment: policies, institutional structure, and capacity – GEF budget USD669,994*:* The aim of this outcome is to establish the conditions that will allow SLM work to continue beyond the life of the project. The CER indicates three outputs summarized as follows: (1) Policy and institutional framework: (a) Provincial land use policies that are being implemented. (b) Integration of SLM into provincial sectoral policies (agriculture, forestry and water). (c) Cross-sectoral Desertification Control Cells in the federal government and in each of the provincial governments. (2) Institutionalized multi-tier capacity building program: (a) In-service training program with certification testing. (b) Village-level training. (c) Masters course on SLM. (3) Knowledge management and outreach program: (a) Network of SLM practitioners. (b) Documentation and sharing of indigenous knowledge and best practices. (c) Outreach materials and events.

Outcome statement in CER: "Strong enabling environment at national and provincial levels supports up-scaling of climate-resilient SLM practices to combat land degradation and desertification (by reducing pressures from unsustainable use of water and land, poor farming practices, overgrazing and poor forest management) through provincial land use policies, inter-sectoral coordination mechanisms and increased capacity."

Outcome 2. Local land use planning and provincial decision support system – GEF budget USD499,330: The aim of this outcome is to provide tools for carrying out SLM in a way that is scientifically and administratively effective. The CER indicates two outputs summarized as follows: (1) GIS-based district and village land use plans that are being implemented. (2) A Decision Support System using GIS and remote sensing used by provinces to make SLM-type decisions.

Outcome statement in CER: "Effective, targeted, and adaptive implementation of SLM practices to reduce land degradation and desertification is supported through local Land Use Planning & Provincial Decision Support System using evidence-based and locally relevant information on land degradation and climate change."

Outcome 3. SLM measures over 800,000 ha (4 provinces, 14 districts, over 200 villages) – GEF budget USD2,307,968: The aim of this outcome is to scale up SLM measures carried out during SLMP I in the targeted districts and villages of SLMP II. The CER indicates five outputs summarized as follows: (1) CBO (community-based organization) establishment in villages for up-scaling the SLM measures and facilitating good governance and monitoring. (2) SLM/ soil and water conservation measures on agricultural land, such as water control and storage structures and shelterbelts. (3) SLM measures on rangelands, such as rangeland management plans, reseeding, and reforestation. (4) SLM measures to restore degraded dryland forest and stabilize sand dunes, including community tree nurseries and reforestation, energy plantations (wood lots), and vegetation for stabilizing the sand dunes. (5) Policy incentives and community-based SLM funds to promote SLM up-scaling, including business plans, PPPs, and targeted matching grants.

Outcome statement in CER: "On-the-ground implementation of climate-resilient SLM activities is up-scaled in 4 provinces [Punjab, Sindh, Balochistan, & Khyber Pakhtunkhwa], 14 districts and more than 200 villages across landscapes covering 800,000 ha based on successful interventions conducted during the pilot phase addressing integrated land and water management by local communities that improve livelihoods, restore degraded ecosystems and biodiversity and build resilience to climate change."

Institutional and management structure: The project has national-level and provincial-level implementation partners (IPs), as well as a number of partners to implement the project on the ground, sometimes also called IPs. The national-level IP is the Ministry of Climate Change (MoCC); and the provincial level IPs are each of the Provincial Planning and Development Departments (PP&DDs). The representative of these IPs for day-to-day issues are the National Project Director (NPD) at the federal level and the Provincial Project Directors (PPDs) at the provincial level. UNDP is the GEF Implementing Agency (IA). The implementation partners for on-the-ground work in the villages include provincial forestry departments, provincial agricultural departments, and some national and local level NGOs, such as National Rural Support Program (NRSP) and Thardeep Rural Development Program (TRDP). The

provincial departments, in turn, work through their district counterparts and their provincial institutes to accomplish things at the village level.

Project management is carried out through the project's National Coordination Unit (NCU) at the federal level in Islamabad and its Provincial Coordination Units (PCUs), one in each province, at the provincial level. The NCU was initially staffed by six persons paid through GEF funds, the National Project Coordinator (NPC), the Policy and Capacity Building Officer, the Land Use Plan and Implementation Officer, the Geographic Information System (GIS) Officer, the Communications Officer, and the Finance and Administration Officer. The Policy and Capacity Building Officer resigned one or more years prior to project close, but was not replaced. There are also two to three persons at the NCU paid through government funds, the Deputy Director/ Monitoring and Evaluation (M&E) Officer, a second GIS Officer, and a Finance and Administration Officer. Each PCU is designed to have a Provincial Project Coordinator (PPC) paid through the project. Each PCU has had two different PPCs due to staff turnover or nonrenewal of contract. Punjab decided not to replace its second PPC, but has a strong Deputy Director/ M&E Officer, who has been with the project throughout. The PCUs may have other staff, usually a finance and administration person. These are usually paid for by the provincial government, though the project may provide support in some cases.

Stakeholders: The key project stakeholders are villagers in project areas, both men and women. Other stakeholders include government officials and staff at the federal, provincial, and district levels, who are involved in fields relevant to SLM, including planning, agriculture/ soil and water conservation, animal husbandry, and forestry. Staff of government technical institutes and faculty and students of universities are also stakeholders of the project.

Timeline: The project timeline is shown in Exhibit 1. The largest gap in terms of going beyond what is typically considered acceptable is the 19 months between project approval in October 2013 and ProDoc signing in May 2015. In theory, there is no reason for there to be any delay between these two steps. The IP approves the ProDoc and CER before they are submitted to the GEF for approval. In practice, we guess the delay may be due to the preparation of the PC-1.

Exhibit 1. Project Timeline (*red ellipse indicates excessive delay*)

Nov. 29, 2011	**March 22, 2012**	**Oct. 3, 2013**	**May 5, 2015**	**Nov. 15, 2015**	**Aug./Sept., 2018**	**May 4, 2020**	**Dec. 2020**	**Dec. 31, 2020***
Submission of PIF (project concept)	PIF approved	Full project approved: "CEO Endorsement"	ProDoc signed; official project start	Inception Workshop	Mid-Term Review (MTR) Mission	Original Project Close Date	Terminal Evaluation (TE) Mission	Project Close Date (*with 8 month extension*)

*While the UNDP-GEF project officially closed on this date, the government project is continuing for at least half a year in all provinces, until fiscal year close on June 30, 2021, and for at least one year, until Dec. 31, 2021, in Sindh.

2.2 Background Context

A large majority of around 80% of Pakistan's land area is classified as either arid (less than 10 inches of rain per year) or semi-arid (10 to 20 inches of rain per year). The nation has a large and growing population estimated at around 220 million of which an estimated 63%, or 139 million, live in rural areas. Given the large proportion of the nation's area that receives little rainfall, along with population pressures, many of these rural people live in areas that suffer from land degradation. Challenges include soil erosion due to wind and water, deforestation, desertification, depleted ground water resources, reduced surface water availability, soil salinity, and loss of soil fertility. Causes including over-collection of fuel wood, over-grazing, and poor irrigation and drainage practices. Due to water scarcity, people are

compelled to go far to get water or move. Many must out-migrate for jobs/economic opportunities due to being unable to sustain themselves from their land. The poverty ratio in Pakistan was reported to be 24% in 2015 and is said to have risen since then. Given the fragility of natural resources in arid and semi-arid areas, rural poverty in such locales is often closely linked to the impact of land degradation on land productivity.

With such a high level of impact on its land and populace, land degradation in drylands (arid and semi-arid areas) is certainly of great national importance to Pakistan. Yet, institutionally and policy-wise, the nation is not set up to address dryland degradation issues in the integrated, multi-sector way that is needed. Further, line departments lack expertise on issues and measures related to dryland degradation. As discovered from fieldwork, key approaches, such as drip irrigation and replacing standard plantings (such as apple trees) with low water consuming ones (such as olive trees), are completely new to some of Pakistan's driest areas and have not been introduced by relevant line departments. To address dryland issues, there is a need to bring in the various relevant departments, such as forest departments, livestock/ range management departments, and agriculture/ irrigation departments, so that dryland landscapes can be improved in an integrated, multi-sector fashion.

As a nation, Pakistan is a party to the United Nations Convention to Combat Desertification (UNCCD), which it signed in 1994 and ratified in 1997. Yet, so far the nation does not have an institutional structure to address desertification. If it did, it might be able to mobilize significant funds towards integrated sustainable land management measures. According to sources, a vast majority (up to 97%) of funds spent on "development" in Pakistan are actually domestic funds rather than those of international donors. As a key example of a major domestically funded program, from 2014 to Aug. 2017, a government program called the Billion Tree Tsunami Project (BTTP) was carried out in KP Province, with tree planting or natural regeneration of trees over 350,000 ha and an investment of USD169 million. In 2018, an expanded five-year program covering the whole country and called 10 Billion Tree Tsunami Program (10 BTTP), or Plant for Pakistan, was launched with a projected budget of USD760 million. This shows that, at a national level, Pakistan is ready to launch large programs to deal with its most vexing issues of land degradation. So far, however, programs have been carried out only along sectoral lines. A key challenge is that the experience and institutional framework for an inter-sectoral approach to SLM is lacking.

3. Assessment of Project Relevance and Design

3.1 Relevance

SLMP II and the Pakistan dryland SLM concept generally are highly relevant and highly needed. The overall concept, as introduced with SLMP I, is also new and innovative. We found that SLM initiatives were enthusiastically welcomed in the field and had very substantial income benefits, further confirming the strong relevance of SLMP II and the SLM concept. Later in this report, we offer recommendations on how the SLM concept may be elaborated, so that its purpose and approach are clearer and it is specifically integrated with the income generation/ poverty alleviation purpose it is in practice already addressing.

3.2 Design Quality, including Results Framework/Logframe

The overall design of SLMP II is appreciated for bringing together a comprehensive, multi-pronged approach to scaling up dryland SLM in Pakistan, including establishment of an enabling environment that would facilitate continuation of such SLM activity into the future. The main challenges we see with the design are with the strategic indicators/ targets and with the design of project management, namely, structure of the project team. Having had the opportunity to review results for each of the outcomes in

depth, with the benefit of hindsight, we also see ways in which design work may have taken preemptive action to prevent some of the problems that eventually emerged with each. Details are below.

Strategic indicators and targets: One of the biggest problems with the project design is the land area indicator targets. These total 800,000 ha of "improved land," but there is no information on how this total (nor the breakdown into farmland, forestland, rangeland, and sand dune stabilization) was arrived at. Our assessment suggests the overall target is unrealistic. Also, it would have been helpful for the design to provide clarity on what should be counted towards achievement of the target (e.g., surrounding area improved, replication attributed to the project, etc.). In-depth discussion of this issue is provided in Section 7.

We also found that some of the other indicators could have been (a) described with more clarity and/or (b) more realistic. As examples: One indicator for Outcome 3 is: "Number of villages and households in target districts participating in SLM activities." The PIRs interpret this number to be the number of households participating in training. Yet, training is a part of Outcome 1. We interpret this indicator to mean those participating in SLM on-the-ground measures. Ideally, the designers would have been more precise in their wording. Next, while the target for the foregoing indicator is 12,500 HH, another Outcome 3 indicator, "Number of farms in target districts implementing soil and water conservation measures and on-farm management practices," which seems to be a subset of the former indicator, has a higher target, "28,400 farmers." This leads us to wonder whether the "farmers" should be counted as individual persons rather than households, so that again, more precision in wording would have been helpful. Another Outcome 3 indicator is "% of households participating in agreements to restore degraded dryland forests." This indicator does not specify whether the proportion is to be of households in the district or of households in project villages. Perhaps "district" is the denominator, as the preceding indicator states "% of livestock owners in target districts participating in agreements to restore degraded rangelands." Yet, we feel that taking the district as the denominator makes the target overambitious and is unrealistic, as the majority of households in these districts are livestock owners. Another unrealistic target is the GHG sequestration target, discussed in the relevant cell of the full *Progress towards Results Matrix* in Annex 2.

Design of policy and institutional outcome: The output descriptions for Outcome 1 mention the type of policies to be pursued (land use policies and integration of SLM with existing sector policies), but do not provide details on how to achieve the associated targets. The same is true of the design's mention of the DCCs. The targets call for the land use policies to be implemented and the DCCs to be functioning. We suggest the activity descriptions should provide the specific steps for achievement of these states. Activity descriptions should go beyond preparation of a draft policy, for example, and include the promotion work the project should do to maximize the chances of policy adoption. As for the DCCs, the design includes almost no guidance on how project activities will facilitate their establishment. It seems that it is simply expected to happen and this may explain why, at EOP, the future of the DCCs is quite tenuous.

Another way in which the design of Outcome 1, with hindsight, could have been improved would be the provision of more detailed descriptions of the policy and institutional targets. The land use policy proposed might have been designed to focus on the types of rural, arid areas that the project aims to address, rather than have the very broad scope of land use policy generally. And, the design may have included elaboration on the nature of the policy and what problems were expected to be addressed by its adoption. The vision of a functioning DCC and what its specific role would be might also have been described.

Design of LUP and DCC outcome: Similar to some of the above issues with Outcome 1, Outcome 2 design targets implementation of LUPs, but provides no activities to take the LUPs from draft status to implemented status. Further, some description of the nature of LUP content may have helped to ensure that the LUPs would be truly useful. As for the DSS, a more specific description of what the DSS would

be able to do may have helped implementers better understand its use, so that they would perhaps have been more on-board to implement this activity.

Design of on-the-ground outcome: With hindsight, we can see that it would have been useful if the ProDoc (in addition to listing SLM measures) specified the nature of SLM to be achieved in the target villages. This overlaps with our above comment with regard to relevance, that a clearer definition of SLM is needed. It would have been helpful for the ProDoc to specify that: (a) Each project village should have multiple SLM measures, ideally, if appropriate, in multiple sectors. (b) Water resources should be a key focus with emphasis not only on water conservation, but also water table recharge. (c) Inappropriate/ un-ecological land conversion should be avoided as should plantings that are known to be relatively high in water consumption. In particular, planting of high water consuming forest plants and non-indigenous tree species, such as Eucalyptus, should be avoided.

In addition to clarifying that multiple measures should be carried out in each SLM village, the project design may have also provided more guidance on village selection. Sindh Province, as it prepares finally to spend its PKR 200 M in provincial SLM co-financing, plans to adopt a "cluster strategy" in which three clusters of 15 villages each are targeted for SLM interventions. The aim is to achieve improvement across a larger contiguous landscape area than would occur in the SLMP II approach of selecting dispersed villages. In retrospect, SLMP II project design may have considered designating such an approach as well. Further, the project design may have offered some guidance on whether the focus of SLM should be areas that were formerly productive and have become degraded, or areas that have been bare land/ desert for a century or more (e.g. desert oasis initiatives of SLMP II in Sindh). One stakeholder pointed out to us his belief that it would have made more sense to focus on recently degraded areas rather than on long-term desert as SLMP II did in some of its interventions. While this topic requires more discussion and research, it may have been addressed to some degree in project design.

Design of project management / staffing: Section 9 discusses implementation challenges with regard to the structuring of the project team and provides expenditure analysis. Findings suggest that staffing accounted for 28 to 33% of GEF funds spent[4], even though staff mostly played a project management role rather than implementation-of-activities role. Further, our findings suggest that the heaviness of the project team at the federal level (6 persons supported with GEF funds) and lightness at the provincial level (1 person per province, usually, supported with GEF funds) did not make sense given that most of the targeted results were at the provincial level.

Recommendations[5] for design of future projects: 1. Future projects that have land area targets (and other large, quantitative objective targets, for that matter) should explain in detail where exactly the targeted land is (for land area indicators) and how the target number (such as 800,000 ha in the case of SLMP II) was come up with. The project design document should further offer guidance on what should be included in computations of "land area improved" (or other quantitative indicator), such as surrounding area improved and/or replication. UNDP's BRH is already addressing these needs in its current design practices. 2. Future projects should ensure that all strategic indicators are clearly stated and do not leave room for multiple interpretations. 3. Future projects in their design should include activities to expressly address the more challenging aspects of successfully reaching the project's strategic targets.

[4] The basis of this result is shown in Exhibit 22 of Section 9.3. Staffing expenditures from GEF funds are estimated by the project team to be USD1,053,739. This amount makes up a total of 33.3% of total GEF expenditures estimated by the project team and a total of 28.1% of confirmed expenditures of GEF funds as of Dec. 31, 2020.
[5] There is a consolidated section of 15 key recommendations at the end of the main text. We have, however, also included some recommendations throughout the text, as in this case, to show the reader the connection between findings on the topic at hand and recommendations. Only the 15 most important recommendations are included at the end of the report. And, in some cases, those may be consolidation of some of the recommendations occurring in various locations throughout the rest of the text.

Thus, the activities should not only call for drafting of policies or land use plans, but for vigorous promotion so that these will be more likely to be adopted and implemented. 4. Future SLM work should be designed to target multiple measures (across sectors as relevant) in each village. A cluster approach to achieve SLM results across a wide area of landscape (such as Sindh's new plan to carry out SLM in clusters of 15 villages each) should be considered. Further, there should be discussion and analysis to address the question of whether SLM should mainly address recently productive but now degraded land or areas of bare land/ desert that may not have been productive for over 100 years. 5. Project design should carefully consider the cost and distribution of project team members. Projects targeting mainly provincial results should have mainly province-based staff. Heavy staffing of projects (vis-à-vis proportion of the budget spent on staffing) should only be adopted if the team will be responsible for carrying out a significant portion of the activities rather than hiring contractors. The ProDoc TORs for project staff should more carefully specify technical requirements, track record requirements, and required experience working with government, if needed.

Note: Findings on additional topics related to project design are provided in Annex 3 (Section A3.1).

4. Overall Results: Progress towards Targets

The challenge in assessing progress towards targets: The centerpiece of this section is the "Progress towards Results Matrix," required of UNDP-GEF TEs, which shows progress achieved towards the project's indicator targets as set at the time of project design. Project reporting on these indicators in the annual PIRs is highly unsatisfactory. Achievements in the category of land area improved were consistently reported in the PIRs as quite high and on track to meet targets, without real basis. The TE team asked for justification of the high achievements, but no solid explanation was provided. It appears that the provinces (the PCUs) reported achievements in a simple way, such as number of various measures carried out and sometimes area treated, which were then extrapolated/ scaled upwards at the national level (the NCU) with an unknown methodology. At the same time, as has been noted, land area targets may have been set unrealistically high, thus setting up the project for failure to achieve them. The MTR included such high achievements in its "Progress towards Results Matrix," but indicated repeatedly that the achievements could not be verified. At the time of the July 2020 PIR, achievements were reported as 366,575 ha of farmland improved (compared to a target of 400,000 ha); 109,935 ha of forestland improved (compared to a target of 100,000 ha); 162,905 ha of rangeland improved (compared to a target of 287,700 ha); and sand dune stabilization achieved over an area of 17,900 ha (compared to a target of 11,700 ha). The project team indicated they have no information on the basis of the substantial baseline values (as indicated in the project design in relation to these targets) and were thus calculating achievements from a baseline of zero. While the project design calls for external third party assessment of project indicators at mid-term and end of project (separate from and prior to the MTR and TE), this was never done.

Approach to addressing the challenge: Given the complexities in and importance of assessing land area and beneficiary related achievements, the TE team put substantial effort in building a bottom-up model for indicator assessment and developing fact-based, rough estimates of achievements. Basically, we used submissions from the provinces of village-level achievements (or district-level achievements along with names of involved villages in the district), but adjusted these by incorporating: (i) trends from findings in the field and other village interviews, (ii) analysis on the areas benefiting (beyond the area treated) of various types of SLM measures, and (iii) estimates of replication (also based on field visits and interviews). The detailed results of these efforts can be found, by province, in Annexes 16, 17, 18 and 19 (with summarized versions in this document in Annexes 6, 7, 8, and 9). To summarize the process: We prepared templates and requested bottom-up data from the provinces (the PCUs), which were to show

achievements on a village-by-village basis. While some provided this, others provided achievements only on a district level, but listed involved villages. In addition to lack of village-by-village data, a second challenge is that most provincial reporting tended to include only "area treated" rather than the larger land area that may benefit in the case of some measures (such as rainwater harvesting ponds, which serve to recharge the water table over an extended area). Also, PCU-provided data did not include information on replication stimulated by the project. The TE team combined the provincial responses to our bottom-up information requests with our findings from interviews with 22 villages and 14 district-level IPs, as well as associated site visits. The detailed information gathered in these interviews was used to check and adjust reported achievements as needed and also, very importantly, to provide estimates on information that was often lacking, such as wider area benefiting from measures, beneficiaries, income benefits, and replication.

Recommendation for future M&E of such projects: We hope this extensive work (as reflected in Annexes 16, 17, 18, and 19) can be considered as a model for bottom-up approaches in assessing indicators for multi-province natural resource projects in the future. We believe that bottom-up reporting in a user friendly format is indeed critical to projects of this nature. Without it, indicator achievements are opaque and the laborious process needed to justify such achievement reporting ensures that most will not be able to verify, but that instead the level of mistrust of reported findings will run high. Further, with such a user friendly bottom-up reporting model, UNDP could fulfill its role as GEF IP more effectively. Under current conditions, UNDP oversight missions may visit a village recommended by the project team, but have no way of knowing whether the village is one of a few quality examples or one of, say, 50 or 100 such villages claimed. With bottom up reporting of achievements, oversight teams will be able, on their own, to randomly select villages to visit and (in larger number) call. And, they will be able to compare the bottom-up claimed achievements with their actual findings from this oversight work.

Synthesis of results of bottom up estimates of provincial achievements: Exhibits 2, 3 and 4 are each tables that juxtapose and aggregate, by province, the bottom up estimates resulting from the work shown in Annexes 16, 17, 18, and 19 (and summarized in Annexes 6, 7, 8 and 9 of this document). The first of these tables, Exhibit 2, which summarizes land areas improved, shows clear contrast between the overall achievement level of Punjab and KP (comparatively high achievement levels) and that of Balochistan and Sindh (very low achievement levels). It also estimates total land area improved (including direct, indirect, and replications) to be 19,320 ha, far less than the hundreds of thousands ha targeted, though again, these high targets may have been inappropriate and remain without explanation (by the designers) of how the project was expected to achieve them. The second table, Exhibit 3, divides beneficiaries into direct (the ones participating directly in the SLM activity and more often than not achieving significant increases in annual income as a result) and indirect (those who benefit indirectly from the intervention, such as through rainwater ponds' contributions to the water table associated with the surrounding area or via reduced wind erosion on their land as a result of trees planted on neighboring land).

Exhibit 2. "Area of Improved Land" Achievements by Province (in hectares)

Note: Based on bottom-up analyses provided in Annexes 16-19 (and summarized in Annexes 6-9), these are very rough, "ballpark" estimates.

Type of Land	Category of Improvement	Punjab	KP	Balochistan	Sindh	Total for all 4 Provinces
Agricultural Land	Direct	438.8	1,956.6	79.3	26.8	2,501.5
	Indirect	3,408.2	3,919.7	0.8	120	7,448.7
	Replication	4,059.3	300.8	90	0	4,450.1
	Provincial Subtotal	***7,906.3 ha***	***6,177.1 ha***	***170.1 ha***	***146.8 ha***	***14,400.3 ha***
Forestland	Direct	286.9	126	0.8	0	413.7
	Indirect	286.9	126	0.8	0	413.7
	Replication	203.9	0	0	0	203.9
	Provincial Subtotal	***777.7 ha***	***252 ha***	***1.6 ha***	***0***	***1,031.3 ha***
Rangeland	Direct	802.1	95	10	0	907.1
	Indirect	2,406.3	285	0	0	2,691.3
	Replication	0	0	0	0	0
	Provincial Subtotal	***3,208.4 ha***	***380 ha***	***10 ha***	***0***	***3,598.4 ha***
Sand dune stabilized land	Direct	0	145	0	0	145
	Indirect	0	145	0	0	145
	Replication	0	0	0	0	0
	Provincial Subtotal	***0***	***290 ha***	***0***	***0***	***290 ha***
All Types of Land	**Provincial Total**	**11,892.4 ha**	**7,099.1 ha**	**181.7 ha**	**146.8 ha**	**19,320 ha**

Exhibit 3. "Beneficiary/ SLM Participant" Achievements by Province – 1 (in number of households – "HHs")

Based on bottom-up analyses provided in Annexes 16-19 (and summarized in Annexes 6-9), these are very rough, "ballpark" estimates.

Note: Direct beneficiaries include direct beneficiaries of replication. Indirect beneficiaries include indirect beneficiaries of replication.

Type of Land	Category of Improvement	Punjab	KP	Balochistan	Sindh	Total for all 4 Provinces
Agricultural Land	Direct Beneficiary including replctn	912	1,482	286	110	2,790
	Indirect Beneficiary including replctn	5,430	911	874	561	7,776
	Provincial Subtotal	***6,342 HHs***	***2,393 HHs***	***1,160 HHs***	***671 HHs***	***10,556 HHs***
Forestland	Direct Beneficiary including replctn	86	12	1	0	99
	Indirect Beneficiary including replctn	170	22	0	0	192
	Provincial Subtotal	***256 HHs***	***34 HHs***	***1 HHs***	***0***	***291 HHs***
Rangeland	Direct Beneficiary including replctn	1,982	238	2	0	2,222
	Indirect Beneficiary including replctn	0	0	0	0	0
	Provincial Subtotal	***1,982 HHs***	***238 HHs***	***2 HHs***	***0***	***2,222 HHs***
Sand dune stabilized land	Direct Beneficiary including replctn	0	34	0	0	34
	Indirect Beneficiary including replctn	0	14	0	0	14

	Provincial Subtotal	***0***	***48***	***0***	***0***	***48***
All Types of Land	**Provincial Total**	**8,580 HHs**	**2,713 HHs**	**1,163 HHs**	**671 HHs**	**13,127 HHs**

Exhibit 4. "Beneficiary/ SLM Participant" Achievements by Province - 2

Based on bottom-up analyses provided in Annexes 16-19 (and summarized in Annexes 6-9), these are very rough, "ballpark" estimates.

Category	Item	Punjab	KP	Balochistan	Sindh	Overall
Project Districts	Number	4 districts	2 districts	4 districts‡	1 district‡	11 districts
	Number of Rural HHs (overall)	714,432 HHs	267,068 HHs	206,405 HHs	175,000 HHs	1,362,905 HHs
Project Villages*	Number	83 villages	57 villages	37 villages	16 villages	193 villages
	Number of Rural HHs (overall)	36,271 HHs	20,121 HHs	14,208 HHs	5,272 HHs	75,872 HHs
HHs participating in SLM measures‡	Number (direct beneficiaries including repl)	2,980 HHs	1,766 HHs	289 HHs	110 HHs	5,145 HHs
	% of district rural HHs	0.4%	0.7%	0.1%	0.06%	0.4%
	% of village HHs	8.2%	8.8%	2.0%	2.1%	6.8%
	Weighted avg. income increase† (/HH/yr)	+Rs106,288/	+Rs43,201	+Rs783,000	+Rs284,737	+Rs105,932**
	% income increase (est. avg on 720,000 Rs)	+15%	+6%	+109%	+40%	+14.7%‡‡
HHs participating in agricultural measures	Number of HHs participating	912 HHs	1,482 HHs	286 HHs	110 HHs	2,790 HHs
Livestock owner HHs participating in rangeland measures‡	Number of HHs participating	1,982 HHs	238 HHs	2 HHs	0	2,222 HHs
	% of livestock owner HHs in project districts	0.3%	0.1%	0.001%	0	0.2%
	% of livestock owners HHs in project villages	5.5%	1.2%	0.01%	0	2.9%
HHs participating in dryland forest restoration‡	Number of HHs participating	86 HHs	12 HHs	1 HH	0	99 HHs
	% of rural HHs in project districts	0.01%	0.004%	0.0005%	0	0.007%
	% of rural HHs in project villages	0.2%	0.06%	0.007%	0	0.1%

*Defined as those in which SLMP II on-the-ground measures were implemented.

‡We include direct beneficiaries (whether from the project intervention or its replication) only and not indirect beneficiaries, as direct beneficiaries are considered true participants in the activity. For computing share of livestock owners, we assume all rural households own livestock. Since the average livestock ownership may range from 80-100%, or 90% on average, this approach may overestimate the denominator by about 10%, but given the rough estimation and also that population figures in the denominator are probably underestimated (being based on 2017 data), this assumption may suffice.

†For direct beneficiaries across all measures for which income increases were reported. (In some categories of measures, such as rainwater harvesting ponds without conveyance systems, no income increases were reported and these categories are thus not included in the computations of weighted average increase in income. Such categories, however, are a minority of all categories for Punjab and KP, though play a larger role in Balochistan and Sindh.)

‡5 districts were targeted in Balochistan, but only 4 saw implementation of SLMP activities by the time of the TE. 3 districts were targeted in Sindh, but only one saw substantial implementation of SLMP activities by the time of the TE, so that is the only district included here. (Most activities in Sindh were in Tharparkar District. There was one activity in Umerkot District, but to simplify, we assume all activities were in Tharpakar District.)

**It is important to note that only a portion of direct beneficiaries are included in this income increase estimate. For Punjab and KP, it is the majority of beneficiaries. The total number of households included in this weighted average income calculation are 4,152. The number per province are shown in the calculation as follows: ([Punjab Rs106,288/HH x 2,529 HHs] + [KP Rs43,201/HH x 1,461 HHs] + [Balochistan Rs 783,000/HH x 124 HH] + [Sindh Rs 284,737/HH x 38 HHs])/4,152 HHs = Rs105,932/HH/yr.

‡‡This is the weighted average for HHs in categories for which income benefits were reported only and not for the villages or districts as a whole. The number of households over which the weighted average is taken is 4,152 HHs.

Progress towards Results Matrix: The above results and other findings from TE work are incorporated into the *Project towards Results Matrix*, a summarized version of which is provided in Exhibit 5 and full version, in Annex 2. The table shows our assessment of progress towards project indicator targets (with explanation in Annex 2) and also shows our ratings for the objective and each of the project outcomes (with explanation). We note that we are required to use the project's original indicators and targets in this color-coded table, regardless of whether we find them suitable. We find that the majority of targets as described are not met, thus there is no dark green color applied to any of the indicator cells. We have added a few additional gradations to the standard green-yellow-red coding, such that those targets that have a chance of being met in the future are shown in either light green (a lighter green than the green used in the key for "achieved"), yellow, and gold. We introduce the lighter green for those targets the project has come the closest to achieving. Yellow is reserved for those in which good progress/ meaningful results have been made, but the target is still quite distant. Gold is used for those targets in which progress has made, but efforts have fallen far short, so that there is a risk of not achieving very substantial or meaningful results without additional strong intervention in the future.

Exhibit 5. Progress towards Results Matrix Summary – *SLMP II* TE (see Annex 2 for full version)

Strategy	Indicator	Baseline	End of Project Target	Indicator Value at time of TE	Objective or Outcome Rating and Justification for Rating
Objective: Sustainable land and natural resource management in the arid and semi-arid regions of Pakistan alleviates environmental degradation and maintains the continuous flow of ecosystem services, while increasing resilience to climate change	Area of farmland in target districts with reduced land degradation resulting from introduced SLM practices	100,000 ha	400,000 ha	**+14,400.3 ha agricultural land improved (*from baseline of 0.0*)**	**Moderately satisfactory**: SLM in Pakistan's arid areas, as an integrated approach to improving land quality in agricultural, forest, and rangeland areas, is extremely relevant and needed. The project has leveraged a level of "true" government co-financing that is rare for donor projects to date in Pakistan. Measures in the field were found by the TE Team to be highly welcomed by beneficiaries in water-short areas. The measures substantially increase their incomes, while at the same time improving land quality. For several of the measures deployed, land quality is not only improved in the areas treated, but across wider surrounding areas. There was innovation in the case of some measures. One challenge is that, while deployment of measures was substantial in Punjab and KP, the level of deployment in Balochistan and Sindh was far less than would be expected. And, while generally positive, there were technical and sustainability issues in some cases as well as a need to improve in beneficiary selection. Unfortunately, the project was weaker in developing the enabling environment and conditions that would sustain SLM efforts beyond the life of the project. Policies were drafted, but not adopted. DCC regularization is in limbo, but if it happens, it will not be at the level of potential impact that would be hoped for. Little effort was put into developing financing mechanisms for SLM, despite this being a part of the design. Land use plans prepared were not being used for the most part; and the DSS targeted was never prepared.
	Area of degraded forests and rangelands and shifting sand-dunes in target districts benefiting from introduced SLM techniques	Forests: 43,500 ha	Forests: 100,000 ha	**+1,031.3 ha forest land improved (*from baseline of 0.0*)**	
		Sand-dunes: 11,700 ha	Sand-dunes: 12,300 ha	**+290 ha sand dune area stabilized (*from baseline of 0.0*)**	
		Range-lands: 175,000 ha	Rangelands: 287,700 ha	**+3,498.4 ha rangelands improved (*from baseline of 0.0*)**	
	Project communities are participating in SLM interventions and have increased their average household income earned from dryland farming and NRM activities as compared to baseline.	5% of households participating YR1	15% of households benefiting by YR5	**6.8% of HHs in project villages and 0.4% of HHs in project districts directly participating in SLM interventions.**	
		3,000 US$ average income	Income increased by 20% by YR5	**+14.7% weighted average income increase for directly benefiting households for measures in which feedback on income benefits was obtained**	
	Total amount of CO2 equivalent greenhouse gas sequestered in the target districts due to effective application of SLM practices	7 million tons CO2 equivalent	Sequestration of additional 20 million tons CO2 equivalent	**<100,000 tons CO2 sequestered or less than 0.5% of the target**	
Outcome 1: Strong enabling environment at	Number of provincial land use policies	0	4 provincial land use policies	**4 draft integrated sustainable land management provincial policies**	**Moderately Unsatisfactory:** Activities were carried out in the targeted areas, but these failed to leave a lasting

national and provincial levels supports up-scaling of climate-resilient SLM practices to combat land degradation and desertification (by reducing pressures from unsustainable use of water and land, poor farming practices, overgrazing and poor forest management) through provincial land use policies, inter-sectoral coordination mechanisms and increased capacity.	with SLM and NAP mainstreamed, being implemented		owned by Provincial P&D Departments.	**(ISLMPPs) prepared, but little evidence of follow up on these for over 2 years; chances of adoption, at this point, do not seem strong**	enabling environment post-project, which is the aim of this outcome. While it is true that the achievements targeted in this outcome are beyond the control of the project, what is needed is for projects to do all in their power to facilitate achievement of targeted outcomes, rather than stop with simple achievement of activities or outputs, such as the drafting of a policy. In the end, 4 provincial ISLMPPs were drafted but not adopted and findings suggest these will not move forward without significant outside efforts. On the institutional side, the regularization of the DCCs seems uncertain. Findings suggest if some of the DCCs are regularized, they will not hire high level technical experts, but instead be very lightly staffed with leadership responsibility given to officials already overseeing other areas. Training and information products are a highlight of work under this outcome, though training was not institutionalized as intended and knowledge products were not found to be widely used.
		0	LD issues and SLM principles integrated into sectoral provincial policies on agriculture and forests in all 4 provinces	**No evidence of work on integration of LD issues and SLM principles into sectoral provincial policies found**.	
	Functioning National & Provincial Desertification Control Cells	National & provincial coordination units established during SLMP Phase I	1 National and 4 Provincial Coordination Units converted into respective Desertification Control Cells by the end of YR1	**NCU and 3 of 4 PCUs have made efforts towards "regularization" of project with DCC establishment, but it is unclear whether this will be achieved. If achieved, impact unlikely to be at level hoped for.**	
Outcome 2: Effective, targeted, and adaptive implementation of SLM practices to reduce land degradation and desertification is supported through local Land Use Planning & Provincial Decision Support System using evidence-based and locally relevant information on land degradation and climate change	Number of integrated participatory district level SLM land use plans being implemented (developed with the participation of key sectoral representatives and NGOs/CBOs)	0	At least 4 districts are implementing land use plans integrating SLM	**2 DLUPs and 16 VLUPs viewed by the TE team; a total of 7 DLUPs and 150 VLUPs claimed. No evidence that these are being implemented in a regular way, though they have been used in a few instances for project development and briefing of DFOs**.	**Unsatisfactory:** There was little evidence that the land use plans prepared were being used and the DSS was never prepared. While the TE Team requested to see all of the VLUPs and DLUPs claimed, only a small portion were made available to us. We found that villages visited that had had VLUPs prepared did not have a full copy of their VLUP.
	SLM Information System and Decision Support System operational and being used	0	Systems operational and being used in 2 provinces	**No DSS prepared**.	
Outcome 3: On-the-ground implementation of climate-resilient SLM activities is up-scaled in 4 provinces [Punjab, Sindh, Balochistan, & Khyber Pakhtunkhwa], 14 districts and more than 200 villages across landscapes covering 800,000 ha based on	Number of villages and households in target districts participating in SLM activities	63 villages	400 villages	**+193 villages involved in on-the-ground SLM initiatives (*from baseline of 0*)**	**Moderately Satisfactory**: The on-the-ground SLM interventions are the true strength of this project, with substantial land area improved, substantial number of primary and secondary beneficiaries, and substantial income increases for primary beneficiaries of SLM measures. Punjab achieved an estimated improvement over 11,892 ha of land and KP over 7,099 ha. Yet, achievements in Balochistan (182 ha improved) and Sindh (147 ha improved), while innovative, were weak in terms of land area improved. Some sustainability and technical issues, such as nurseries that were abandoned
		2,300 households	12,500 households	**5,145 HHs involved directly in SLM practices (*fm baseline of 0*)**	
	Number of farms in target districts implementing soil and water conservation measures and on-farm management practices	12,600 farmers	28,400 farmers	**2,790 HHs involved directly in SLM practices on agricultural land (*from baseline of 0*)**	

successful interventions conducted during the pilot phase addressing integrated land and water management by local communities that improve livelihoods, restore degraded ecosystems and biodiversity and build resilience to climate change	% of livestock owners in target districts participating in agreements to restore degraded rangelands	2%	10%	**0.2% of livestock owners in project districts and 2.9% of livestock owners in project villages participating in rangeland improvement initiatives**	after one year and widespread planting of eucalyptus, which is known to be high water consuming, were found. Efforts to develop financing mechanisms, such as village SLM funds, were not substantial.
	% of households participating in agreements to restore degraded dryland forests	1%	5%	**0.007% of HHs in project districts and 0.1% of HHs in project villages participating as owners in reforestation of forestland**	
	Number of community-financed viable local SLM funds, resource specific business plans, public-private partnerships and targeted matching grants designed and supporting up-scaling	5 funds	49 funds	**2 funds just recently set up in two Tharparkar villages, respectively, though not focused specifically on SLM (*from baseline of 0*)**	
		1 business plan	8 business plans	**0: No information was provided on this target and related activities.**	
		1 PPP	7 PPPs	**0: No information was provided on this target and related activities.**	
		3 grants	50 grants	**0: No information wsa provided on this target and related activities.**	

Indicator Assessment Color Code Key

Green= Achieved	**Yellow= On target to be achieved**	**Red= Not on target to be achieved**

Note: We have added a light green category and gold category to distinguish between (i) achieved by EOP (dark green); (ii) on good track to be achieved (good possibility of achievement post-project) (light green); (iii) partially met or on track to potentially be achieved post-project (yellow); and (vi) could be achieved post-project but needs strong external support not currently being planned (gold).

Green = good possibility of achievement post-project	Gold = Could be achieved post-project, but needs substantial course correction not currently being planned

Rating Scale Note: Please see Annex 10 for explanation of the objective and outcome rating scale (Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, and Highly Unsatisfactory). Per guidance, such ratings take into consideration not only indicators but also the objective/outcome statement overall and various findings from TE mission and document review.

Note: Findings on additional topics related to overall project results are provided in Annex 3 (Section A3.2).

5. Outcome 1 Results/ Effectiveness: Policy, Institutional Structure, and Capacity Building

A review of the statement for Outcome 1 (below) reminds us its aim is the establishment of conditions ("an enabling environment") that would have a permanence beyond the life of the project so that SLM practices would continue on an ongoing basis. Our findings suggest this aim is still highly relevant today, but that it has not been achieved. The activities were not effective in achieving results that make a lasting and meaningful impact. As such, there is a risk of "SLM" being lost as a strong unifying and mobilizing concept, though some of the specific practices in the field may remain.

Outcome 1: Strong enabling environment at national and provincial levels supports up-scaling of climate-resilient SLM practices to combat land degradation and desertification (by reducing pressures from unsustainable use of water and land, poor farming practices, overgrazing and poor forest management) through provincial land use policies, inter-sectoral coordination mechanisms and increased capacity.

Relevance/ need for Outcome 1: The policy and institutional work of Outcome 1 was found to be quite relevant and needed. While Pakistan has a policy, institutional, and even capacity building infrastructure in fields such as forestry and agriculture, there is no such enabling environment to address the issues of land degradation in dry areas in a cross-sector way and in a way that puts major emphasis on dry conditions and how to address them. A few examples may help illustrate why a separate, cross-sector SLM-for-arid-areas "infrastructure" (policy, institutions, and training) is needed for the long run: First, there is a major forestry program, the 10 BTTP, underway that has some overlap in measures with SLM, but this program is squarely focused on forestry. And, even for overlapping forestry-type measures, it may not give the attention needed to water resource issues and optimal land use in arid areas. Indeed, during fieldwork the TE Team noted the 10 BTTP was resulting in conversion of rangelands to forests. This was being done largely with the non-indigenous species, eucalyptus, which consume a relatively high amount of water, so that grasses were not growing. As will be discussed, a key focus area of SLM, in fact, should be prevention of such non-ecological land use conversion. As another example of the need for a separate SLM "infrastructure," in Balochistan, despite agricultural outreach efforts over the years, SLMP II appears to have been the first time that very low water consuming crops and trees, such as olive trees, were recommended to replace more standard plantings, such as apple trees, in target villages. Lastly, while agriculture departments tend to have soil and water conservation divisions, sources suggest that these tend to focus on larger soil and water conservation structures and not on the type and scale at the individual farm level that SLM does.

Clarification of Pakistan's "dryland SLM" concept for policy, institutional, and training work: At the same time we recognize that a SLM enabling environment is sorely needed to combat land degradation in Pakistan's dry areas, we also find that the SLM concept and its relevance may need to be clarified, enhanced, and agreed upon, to have a better basis for developing that enabling environment. This is based largely on our findings for Outcome 3 (on-the-ground SLM measures), but we believe the improvement in the SLM concept is critical at the enabling environment level as well. We found that many of the SLM on-the-ground measures were not new (e.g. rainwater harvesting ponds, wood lots, shelterbelts, etc.). Posing the question of why SLM for dry areas is needed if the measures have already been around for years, a key response we received is that this is the first time such activities have been integrated across landscapes. An integrated approach is certainly an important aspect of the SLM-for-arid-areas concept. And, problematically, we found this "integrated" concept was often lost in implementation, such as when forestry initiatives only were carried out in some villages and irrigation measures only in others. Yet, an "integrated" approach alone does not do justice to the SLM concept and the needs it should address. Based on findings in the field, we suggest that, in addition to (a) an integrated approach to

improving land quality, three more aspects are needed to define Pakistan's dryland SLM: (b) an emphasis on appropriate land uses (so that, for example, rangelands in dry areas are not inappropriately converted to forests with non-indigenous, high water consumption species); (c) a central focus on conserving and replenishing water resources; and (d) integration with livelihood enhancement/ poverty alleviation. Had, for example, the project implementers been clear about (b), it is unlikely that eucalyptus (with its high level of water consumption) would have ended up being one of the main trees planted in SLMP II's wood lots, shelterbelts, and dry afforestation initiatives in Punjab and KP. And, a lack of clarity about (c)'s water table replenishment aspect is found in SLMP II's implementation in Balochistan. While they put a strong focus on water efficient irrigation and low water consuming crops, Balochistan SLMP II implementers had, by the time of evaluation, done little work in replenishing the water table. This is despite the fact that falling water tables are a serious issue in project areas in the province and the fact that project initiatives in Balochistan promoted well water irrigation (albeit efficient) of bare land in some cases. Thus, even the water efficient approaches to irrigating previously bare land that were introduced present a risk of further depleting the water table if adopted on wide scale. Lastly, with regard to livelihoods (d), substantial income generation is one of the great strengths of SLMP II. Pakistan's dryland SLM program misses an important opportunity if it does not clearly define itself as a combined dryland natural resource and poverty alleviation initiative, so that the dual benefits are obvious.

Recommendation on clarifying Pakistan's "Dryland SLM Concept" as a basis for further enabling environment work going forward: Going forward, as the provinces finish their implementation of the SLM development project in 2021 and then ideally transition to permanent SLM programs, the dryland SLM concept should be sharpened to include the four following prongs: (a) an inter-sectoral, multi-initiative approach to improving land quality in and around villages in arid areas, with initiatives of different types (e.g. water conserving irrigation, water table replenishment through rainwater ponds, and appropriate forestry and grassland reseeding) taking place in the same village; (b) an emphasis on appropriate land uses and avoidance of ecologically inappropriate land conversion; (c) central focus on both conserving water and replenishing the water table; and (d) integration of all of the foregoing with substantially increasing rural incomes/ poverty alleviation. (Please see Exhibit 6.)

Exhibit 6. To move forward with establishing SLM's policy and institutional enabling environment, the Pakistan dryland SLM concept needs to be better clarified and justified, with the four aspects below emphasized.

Multi-Sector/ Multiple Initiative Approach in Each Dryland Village Inter-sectoral approach with multiple initiatives of different types in and around each dryland village	**Water Focus (conserve + recharge)** Central focus on both conserving water (e.g. drip irrigation) and replenishing water table (rainwater harvesting ponds, dryland afforestation, etc.)
~~**Inappropriate Land Conversion**~~ Adherence to appropriate land uses/ avoidance of ecologically inappropriate land conversions	**Rural Incomes Focus** Substantial increase in rural incomes through all dryland SLM activities.

Overall results and effectiveness – "Enabling Environment": As an interdisciplinary/ cross-sectoral area, SLM faced a challenge to take hold and was in need of very concerted promotion and support in getting policy and institutional structures adopted, but this did not happen. While the project did carry out related activities, the sort of very strategic and concerted approach needed did not occur. While the argument may be made that policy and government institutions are beyond the control of the project, it is important to realize that these are the very things that UNDP-GEF projects have a comparative advantage in influencing. Outcomes of UNDP-GEF projects are by nature "beyond the full control" of the project implementers. If outcomes were instead like simple outputs (e.g. draft policy, institutional plan, training session, etc.), their achievement would not be that meaningful for the long-term. What appears to have been missing from SLMP II implementation is a realization that, even if the "enabling environment"

outcome was out of the project's control, it was the responsibility of the project to do everything it could to try and influence the outcome and assure maximum possibility that it was achieved.

Policy work and results/ effectiveness: The project design calls for preparation, adoption, and implementation, for each province, of "provincial land use policies with SLM and [LD] NAP mainstreamed.by each province." Our understanding of the rationale of such work is to prevent ecologically inappropriate land conversion. Based on findings during field work, such conversion does occur and this rationale is sound. Yet, the project team decided not to pursue such land use policies. The project is said to have prepared "land use policy frameworks," one for each province to test the idea. The findings are said to have confirmed their thinking that land use policies were not the right focus for the project. We asked to see these "land use policy frameworks," but they were not provided to us. It was explained that an unattractive feature of land use plans in terms of project aims is that these would come under the purview of a single department. The team felt it would be more viable to work on an inter-departmental type of policy, where the different departments were on equal footing. We do wonder whether another approach might have been to narrow the scope of "land use policy" to "rural land use policy in arid areas" to make the work fit more closely with the project scope and thus not bring in so many complex issues less related to the scope of the project.

In the end, the team chose to commission what they called Integrated Sustainable Land Management Provincial Policies (ISLMPPs), one for each province. They explain that in addition to the advantage of not being under the purview of any single department, these have the benefit of being broader in scope than land use policies. Upon review of the draft ISLMPPs, we find that they are more like guidance documents, whereas we would have envisioned the targeted land use plans to have regulatory aspects (that is, rules that need to be abided by, such as restrictions on land conversion). Still, stakeholders were confident that if the ISLMPPs were to be adopted, they would be positive for promoting SLM down to the village level. They point out that other policies in Pakistan, such as provincial forestry policies, are similar in nature to the ISLMPPs as prepared (i.e. reading like guidance documents). Samples reviewed show this to be the case. The TE Team believes that, while policy prohibiting un-ecological land conversion in dryland areas is strongly needed, the ISLMPPs, if they are adopted and "implemented," could make a positive contribution to the promotion of arid area SLM in Pakistan, particularly if adopted in conjunction with the establishment of well-staffed DCCs.

Unfortunately, after key work in 2017 and 2018 in consultations for and drafting of the ISLMPPs, based on the evidence found, it appears the project has not been active in revising them as needed nor, most importantly, very active in promoting them. While some continued work in promoting the policies is claimed, based on lack of evidence of impact of such activity for over two years, we assess that the project was not putting in the effort that would reasonably be expected to achieve its major targets. The policies remain drafts and are, in our view, unlikely to be adopted, unless some kind of concerted effort is made. At the same time, the draft policies are officially with the PP&DDs for review; and it is known that standard operating procedures for policy review take a long time. Exhibit 7 shows our provincial level findings on the status of these policies. An important point about implementation is that the policy work was all managed out of the NCU. It seems that the PCUs, given their co-location with the PP&DDs, could have been key players in promoting the adoption of the policies. This reflects our view that the project was too heavily staffed at the center given that all the targets were in the provinces. Another issue, however, is that after the NCU team member responsible for policy left the project in 2019, no one was hired to replace him. As an alternative to a full-time hire, the project might have hired a contractor to update and strongly promote the policies with the target of getting them adopted and their implementation launched.

Exhibit 7. Findings on Situation of Draft ISMLPPs in the Provinces

Punjab	KP
NCU consultant prepared draft ISLMPP and incorporated suggestions into final draft. This is now at PP&DD Board, but document is out of date as it was prepared in 2017/2018. Sources suggest it cannot be approved in its current state without being updated. Yet, there has been no one available to do significant follow up since 2019.	Draft ISLMPP policy was circulated to 13 government stakeholders and observers, but there is now no one continuing the work. Sources suggest that before getting adopted, more work needs to be done on building consensus, such as through a forum.
Balochistan	**Sindh**
We did not find evidence of any recent activity or potential of adoption with regard to the ISLMPP. The project is working on a revised version of Balochistan's Forest Act with provincial funding, but there is no evidence of any plans to mainstream SLM within the new act.	We did not find evidence of any recent activity or potential of adoption with regard to the ISLMPP.

In terms of other policy work: The project also had a target of mainstreaming LD and SLM into sectoral policies in each province. We did not find evidence that any work was carried out in this area. As noted in Exhibit 7, Balochistan is revising its Forest Act, but this does not seem to have to do with mainstreaming SLM in the policy, but rather is being done simply because the Act is out of date. The project prepared a revised *National Action Program (NAP) to Combat Desertification in Pakistan* with USD130,000 in donor co-financing in 2017, but we found no evidence that this NAP made an impact or is being used.

Recommendations with regard to ISLMPPs: The ISLMPPs are unlikely to be adopted unless further action is taken. It is unfortunate that the project did not take such action in 2019 and 2020. Adoption of the policies, however, would be a positive contribution towards the dryland SLM enabling environment. Possibilities emerging from our consultations as means of getting these policies adopted are as follows and may be considered by the provinces (the PP&DDs), MoCC, and UNDP for action: (1) While the UNDP-GEF portion of the project is closed, the provinces continue their work at least until June 30, 2021 and, in the case of Sindh, until Dec. 31, 2021. During this time, the PCU teams could work on updating the policies and promoting them through the needed channels for adoption. (2) The DCCs, if established, could take up the work of revising the draft policies and promoting them through the needed channels for adoption. (3) Another UNDP project with overlapping interests could take up the cause of finalizing and promoting the policies. For this, the GEF 7 Food Security Project or the GEF 7 10 BTTP might be considered. (4) The matter could be pushed at a high level. The Secretary of Climate Change could write a level to the Secretaries of each of the PP&DD's to urge them to move forward with these policies, checking if they need technical assistance to do so. The RR or ARR of UNDP CO, in turn, might first catalyze the process by promoting this idea to the Secretary of Climate Change.

Recommendations with regard to policy work generally: UNDP CO, for its projects that have policy work, should ensure that their project teams understand their mandate is to work as hard as they can and as smart as they can to get the policy adopted and implemented. Even though the ultimate results are not fully in their hands, their actions can raise the probability of success and their inaction can ensure failure.

Results/ effectiveness – institutional: The project among its Outcome 1 targets calls for "one National and four Provincial Coordination Units converted into respective Desertification Control Cells by the end of year one." We did not find signs of any consistent effort over the five-year plus lifetime of the project to achieve this target. The target was certainly not achieved by the end of year one and is not even achieved now. Stakeholders suggest that "regularization" of SLM by setting up DCCs with permanent staff isn't really possible until the in-progress "development project" (which is designated by a type of

Exhibit 8. Findings on Status of Effort to Establish Permanent DCCs

<table>
<tr><th colspan="2">National Level</th></tr>
<tr><td colspan="2">Currently, there are two government-paid staff in the NCU that are said to comprise the DCC, the Vice Director of the NCU and an admin and finance officer. Yet, the DCC isn't really permanent yet as it functions under the "PC-1" (a document governing government development projects). A "PC-4" for regularization has been prepared and is now on the desk of the relevant DG at MoCC, who is also SLMP II's NPD. The next step would be for it to be submitted to the Planning Commission. It is surprising that at end of project, the proposal was still on a desk in MoCC. At the same time, national level stakeholders expressed optimism that regularization is likely to happen. If it does, it is unlikely that any new high-level person would be hired. Instead, the DCC will be staffed by the current two government employees on the project team.</td></tr>
<tr><th>Punjab</th><th>KP</th></tr>
<tr><td>Punjab's PP&DD's internal M&E arm is currently conducting an evaluation of the project. Whether or not the project will be regularized with a DCC will depend on whether the results of the evaluation are positive. If they are, the DCC would be set up as a sub-section under one of the PP&DD's existing sections and the section head would wear the additional hat of DCC Chief. The technical staff from the project (the assistant PCU head and the admin and finance officer) would then become the DCC team.</td><td>Because of lack of funds, KP will not be recruiting any high level staff for a regularized DCC. At present, however, there is a plan to make the head of the Agriculture Section of the PP&DD concurrently head of the DCC, as a sort of interim arrangement.</td></tr>
<tr><th>Balochistan</th><th>Sindh</th></tr>
<tr><td>The Chief Minister of the province has been consulted and is said to be supportive of extending the development project from current end date of June 30, 2021 to June 30, 2022 (Balochistan still has substantial unspent provincial funds.) As for regularization via setting up of a permanent DCC, input suggests there has been discussion with leadership of PP&DD and verbal agreement to process the application.</td><td>No clear information on the regularization of SLM via setting up of a permanent DCC in Sindh was gathered. Yet, because Sindh is the province that has spent the least of its provincial government funds, it has lots of project money left. And, recently, the Secretary PP&DD has sent a letter to the Chief Minister of Sindh requesting continuation of the project for two years with a budget of 200 M PKR.</td></tr>
</table>

document called a "PC-1" on the government side) is close to being over. At that time, they explain, it could be converted to a permanent entity via a "PC-4" government proposal. For such an important target of the project, however, it is surprising that no advance work was done earlier in the project to convince decision-makers and to draw up a plan of how the DCCs would be staffed and financed. It appears that only in recent months did such work begin, though there are some signs of limited progress towards regularization. It is not clear if any of these efforts will be successful, but there is some chance, particularly at the federal level and in Punjab, with KP also a possibility. Even if any of the efforts are successful, it does not look as though any high level SLM-type experts will be hired at the national or provincial levels or as though any separate sections, at the provincial levels within the PP&DDs, will be set up. Instead, at best, a sub-section will be set up in an existing PP&DD section, respectively, such as agriculture, and the head of that section will simply get as an additional title, "Chief of DCC," added to their other responsibilities. At the national level, progress has also been slow, though stakeholders there express confidence that their DCC will be regularized with two current government–paid staff of the project. Exhibit 8 outlines our findings on the future potential of DCC establishment at the national level and in each province. One thing to note is that the DCC at the national level is to be in the Ministry of Climate Change, while the DCCs at the provincial levels are targeted to be in the PP&DDs. Thus, like in the project itself, there will be an institutional disconnect between the national level and provincial level

DCCs. Further, within the PP&DD's, the optimal section to involve is unclear. It seems that during the lifetime of the project, it would have been worthwhile to do more work on the institutional side or at least foster more healthy debate on the optimal way to staff, structure, and place the DCCs.

Recommendation related to DCCs: Overall, any steps possible should be taken to establish the DCCs. Ideally the DCCs should have the four part mandate outlined above in Exhibit 6. Specific steps to consider are: (1) If possible, consider hiring a high level expert for each DCC, with expertise covering the four part mandate, to ensure that SLM strategies and measures are technically sound. (2) At both the national level and provincial levels, consider, discuss, and design the most strategic institutional location for the DCC. In doing so, consider the following questions: Does it make sense for MoCC to have the national DCC and the PP&DDs to have the provincial ones? If so, is there a way to improve the technical exchange between MoCC and the PP&DDs via a strong link between the DCCs? At the provincial level, if the DCC is in the PP&DDs, is there a way to actively involve the Forestry/ Environment and Agriculture Departments of the respective provinces? Or within the PP&DDs, should a person in each relevant technical section (e.g. one in agriculture, one in forestry, etc.) be designated to be a part of the DCC, thus making it a multi-section group? (3) Along with promoting the ISLMPPs to the provinces, the Secretary of Climate Change could write a letter or otherwise encourage the PP&DDs to set up their DCCs and discuss with them a way for the federal DCC to share expertise and support. UNDP CO's RR and ARR may encourage the Secretary of Climate Change to do this as follow-up leveraging the work of the project.

Capacity building and information dissemination results and effectiveness: The project carried out substantial capacity building activities, reaching many persons and educating them on SLM at various levels, but did not achieve institutionalization of capacity building as targeted in the project design. Capacity building activities ranged from large national level SLM conferences held at universities (with mainly university affiliated people in attendance), inter-provincial exchange of SLM related personnel, and training of CBOs in the villages. The project also prepared a number of materials. It designed a university level curriculum for SLM, though we did not find evidence that the curriculum is being used by the universities for which it was designed. One stakeholder explained to us that a large financial outlay would be required to develop a certified M.Sc. Program in SLM to make use of the curriculum in the way intended. We learned that one institute in Balochistan, however, may in the future adopt a portion of this curriculum. Among all capacity building activities, the inter-provincial exchange visits are the one on which we got enthusiastic feedback. The provinces, apparently, were able to get ideas from each other. In particular, the low water consuming crop and olive tree work in Balochistan generated interest from other provinces, who are said to have purchased seedlings from project nurseries to take back with them. As for the village level training, we did not detect especially strong enthusiasm for this from village stakeholders. Among our 22 village interviews, however, a significant number did indicate they had been involved in some sort of training. Thus, with this level of training, we should probably not take the lack of enthusiasm to imply lack of usefulness. Indeed, the training topics were recalled and reported for all but one of the 16 villages interviewed in Punjab and KP combined. The feedback we got on training is summarized by province in Exhibit 9. District-level IPs also confirmed a significant level of training. In terms of information dissemination, during the 16 in-person village interviews, we gathered no evidence of materials related to the field-based SLMP training manual, which we understand to have been subdivided into sections and brochures for villagers, or other information products being distributed in the field.

Thoughts on future training: Given that the project is over, we are not sure if resources will be available for future training. The project design did call for institutionalization of training. This did not happen, but given lack of funding it may not have been practical to expect ongoing, independent SLM training. Stakeholders suggest the village level training was the most impactful. Ideally, if the provinces find a way to continue SLM measures in the future, the provision of measures could be integrated with training on how to utilize the measures sustainably (partly to address some sustainability issues with the measures we

Exhibit 9. Feedback on Training across 22 Villages Interviewed

Punjab – ***9 villages visited***	***KP – 7 villages visited***
Of 9 villages visited, all but one confirmed trainings, most indicating training on 3 to 5 different topics often carried out by two or more organizations. In Punjab, NRSP was the coordinator of all trainings. In Chakwal District, topics (and training organizations) mentioned include fruit orchards and nursery by BARI, water harvesting and irrigation by ABAD, agriculture and kitchen gardening by ARI, forest planation by FD, and PPP by NRSP. Interviews in Khushab and Bhakkar District indicated, in most cases, 20% female attendance at trainings, with 20 to 25 persons total attending each session.	Of 7 villages visited, all confirmed training in one or more topics. In some cases, it was confirmed that there was no direct participation of women in training. In Lakki Marwat District, all 4 villages were trained in kana mechanization and 2 in kana cultivation. Other topics include plantation techniques, nursery techniques, and, in one village (probably for women), poultry techniques. Two villages confirmed that no women were trained but in one it was explained that the men that were trained later trained 10-15 women in operating kana machines. In DIK, 2 of 3 villages reported training in soil and water conservation structures only, whereas the other reported training in agriculture and horticulture and women trained in fruit and vegetable processing and kitchen gardening.
Balochistan ***-4 villages interviewed***	**Sindh** – ***2 villages interviewed***
Only 1 out of 4 villages interviewed confirmed training, but the level of training confirmed for the village was substantial: 2 large trainings of 30 to 40 persons each time and about 10 meeting-like events (supposedly with training) of 10 person each.	Both villages confirmed training, but of only 1 beneficiary each. In the case of one village, there was a one-on-one training for this individual in the village and then a group training he attended in the district, while in the other case there was only a training in the district.

will later point out) and how to adopt other measures for SLM in drylands. Considering some of the challenges in implementation of field measures that were identified, an important target of training or awareness building should be district level line agencies. We found that even those involved in the project were not always clear about SLM, but instead were just implementing their tasks and targets. In KP, we found the FD and Soil and Water Directorate were even working with different CBOs and often in different villages. Going forward, if DCCs are indeed regularized, part of their role should be to educate district line department staff on how to integrate SLM into their wok and on the key principles of dryland SLM as previously outlined: (a) integration of multiple measures (from different sectors) in the same village; (b) avoidance of ecologically negative land use change; (c) strong focus on water conservation and water recharge; and (d) integration of the all of the foregoing with an emphasis on substantial income generation and poverty alleviation for local people, ensuring that benefits are well distributed.

6. Outcome 2 Results/ Effectiveness: Land Use Planning and Decision Support System

Outcome targeted and its relevance: A review of the statement for Outcome 2 (below) reminds us that its aim is for land use planning and a provincial decision support system to enable more effective, evidence-based SLM implementation. The statement implies that decisions on SLM measures to be implemented on the ground will be improved by referencing land use plans and utilizing DSSs. In our view, not much progress was made towards this outcome. District and village land use plans were prepared, but for the most part are not being utilized either generally or in particular to guide decisions on SLM practices. And, the plans lack the specificity and quality needed to be really effective. Further, the project never moved forward beyond RFP preparation with developing a DSS.

Outcome 2: Effective, targeted, and adaptive implementation of SLM practices to reduce land degradation and desertification is supported through local Land Use Planning & Provincial Decision Support System using evidence-based and locally relevant information on land degradation and climate change.

Some of the problems found in the field and that have been discussed above show the need for better land use planning and more data-based decision making. These include: (i) substantial role of eucalyptus planting in the project's non-orchard tree plantings in these dryland areas; (ii) the ecologically negative conversion from rangelands to forest in some of these areas (due to 10 BTTP, which started planting of rangelands); (iii) lack of integration of water recharging measures with the project's opening up of bare land, albeit with water conserving irrigation; and (iv) the project's lack of integration of forestry department and soil and water directorate initiatives in the same village in many cases. Land use plans, if well done and seriously adhered to, could address many of these problems.

A DSS would provide even higher level input that could be quite beneficial to efforts to "green" drylands and conserve and recharge water resources. The DSS envisioned by the project is a system that would be able to access various incorporated databases reflecting the geographic layout of key parameters, such as soil quality, weather, and water resources. The DSS would also include information on the local geographic qualities needed for the success of various measures. Thus, the DSS could be "asked" questions such as "the best locations for olive trees" or "the most appropriate measures for a certain location." Incorporated algorithms would then access the incorporated databases and provide coordinates of appropriate locations or best SLM measures for the coordinates indicated.

Work done on land use plans: The project reports to have prepared 7 district land use plans (DLUPs). In its presentation to the TE Team it reports 150 village land use plans (VLUPs), though the most recent PIR (July 2020) reports 55. The TE Team asked different NCU team members to share all of these land use plans with us, to confirm their preparation. In the end, however, we were only given two DLUPs (for Bhakkar District in Punjab and DI Khan District in KP) and 15 VLUPs (7 for Balochistan villages, 5 for Sindh villages, and 4 for KP villages). The work on the DLUPs and VLUPs was coordinated at the NCU level. We were told that a consultant prepared an initial set of DLUPs and VLUPs (perhaps the ones we were given) and that then the local IPs prepared the others. The consultant also prepared guidelines for preparing district land use plans and guidelines for preparing village land use plans. This is somewhat curious as SLMP Phase I also claims to have prepared guidelines for VLUPs. The TE of SLMP I reports that, at the time of the evaluation, the first phase project had already achieved 41 VLUPs.

Innovativeness and potential use of land use plans: VLUPs are not new to Pakistan, as in the early 1990s a social forestry project introduced cross sector (e.g. forest, rangeland, and agriculture) plans for villages in forest areas ("forest villages"). Stakeholders point out that SLMP II's VLUPs are quite new to the areas for which they have been prepared, though, as indicated, SLMP I is reported to have already prepared 41 of these. Further, in the discussion of "what's new," they point out that the open source (free) satellite images on which the VLUP maps are based are much higher resolution now as compared to what was available in the 1990s. It was explained that the maps are needed to determine the layout for water/ irrigation related SLM interventions and that the maps are very clear and easy to understand, so that villagers should be able to make use of them. The maps, it was said, might be used in areas such as plantation planning. And, the plans, it was explained, propose initiatives, which could be acted upon.

As for the DLUPs, as far as we can tell, such plans at the district level are a new sort of plan in Pakistan. We understand that the DLUPs are intended to be used by the provinces and districts in their planning of on-the-ground initiatives.

Quality of DLUPs and VLUPs: The TE Team reviewed two of the DLUPs (Bhakkar District, Punjab, and DI Khan District, KP) and two of the VLUPs (Abdul Khel Village and Wanda Shahab Khel Village, both in Lakki Marwat District, KP). The DLUPs have good background information and good information on existing land uses, along with GIS based land use maps. Yet, recommendations are too generic and there is no clear action plan for follow up and monitoring and no budget. The VLUPs' background information is not complete and is presented in generic form. The interventions proposed are mainly those carried out under SLMP II. While coordinates of proposed interventions are given, there are no indications of scale/ area or other details, such as species that should be planted. There is no action plan nor budget. These and other comments from review of the plans are summarized in Exhibit 10.

Exhibit 10. Findings from Review of Selected DLUPs and VLUPs

DLUP Review
DLUPs of Bhakkar District, Punjab, and DI Khan District, KP, reviewed
• Both plans have quite good and elaborated background information, and information and data about the existing land uses. • The process for GIS based land use maps has been well elaborated in both. • The proposed land uses are generic and look like strategic plans. The DIK DLUP has generic and broader recommendations for future land uses, while the one for Bhakkar has a table for the proposed land uses and has some targets mentioned. Yet, considering the objectives of the plans, both are too broad and generic. There should have been concrete recommendations with targets. • There is no monitoring framework to assess the achievements/ implementation of the DLUPs, although an M&E plan is mandatory per the project-prepared DLUP guidelines. • Both DLUPs highlight among their list of "contrasting [land] uses leading to conflict" "cultivation of agro-fuel plants versus food production." Yet, in the field, we found the project is putting more focus on agro-fuel plants (i.e. woodlots, mainly eucalyptus), which is reducing the cultivation of cereal crops. • Neither DLUP has a work plan nor schedule of implementation nor budget. • There are no instructions or recommendations in either DLUP for updating or revision, though DLUPs may become out of date after about 5 years and will then need updating.
VLUP Review
VLUPs of Abdul Khel Village and Wanda Shahab Khel Village, both in Lakki Marwat District, KP, reviewed
• The VLUPs seem to be developed in a rush. The background information is incomplete and mentioned in generic form. • There is no stakeholder analysis. • The future land use interventions mainly include the measures undertaken in SLMP II. • The future interventions are broadly indicated, while their numbers, acreage, and extent, etc., are not given. Proposed locations (coordinates), however, are indicated. • There are no monitoring and evaluation plans. • As noted elsewhere, though local communities were initially consulted for the preparation of the VLUPs, field work revealed that the villagers do not have copies nor know about the implementation of these plans. • The plans lack costing and financial arrangements as well as indications of who will do what. • There is no work plan and schedule. • Though some of the activities have been implemented by SLMP II, there is no clear plan to ensure implementation by other stakeholders and projects.

Findings on use/ effectiveness of land use plans: Despite raising the topic of the land use plans (both district and village level) with many stakeholders, we found little evidence, aside from a few special cases, that the plans are being used and thus conclude they are not very effective. In each of our 22 village

interviews we asked about the plans. Feedback on VLUPs is summarized in Exhibit 11. It shows that 8 of the 22 villages (36%) knew of VLUPs or activities related to preparing VLUPs for their village. (Based on this and knowing that there are 193 villages roughly overall, we guess that the number of VLUPs has not reached 150, which would be 78% of project villages.) None of the 8 villages confirming VLUPs or VLUP-like activities had a full copy of their VLUP, though one had a table of prioritized activities and another had a table and a map. Yet, a positive success story was provided by a village not fully interviewed, but attending a TE meeting at one of the interviewed villages. That village had used the VLUP to get around USD50,000 in donor funding for livelihood activities. We also heard a few stories from non-village sources of interest by donors in the VLUPs. One source reported a donor was interested in Kech District (Balochistan) VLUPs as a possible source of activities to fund and another source reported a donor was interested in Tharparkar District (Sindh) VLUPs for the same reason. Despite these relatively weak results in terms of utilization of VLUPs, the TE Team learned that Sindh Province, which did not spend any of its SLMP II provincial funds during the formal GEF implementation period, but has now committed Rs 200 M to SLMP II going forward, appears to attach value to preparing VLUPs before taking action. The province is planning the preparation of a VLUP for each additional village in which it will be implementing SLMP activities in its new "cluster strategy" (in which SLMP will be implemented in clusters of villages instead of dispersed/ isolated ones to achieve more comprehensive improvement over significantly-sized landscapes). Sources indicate the new VLUPs will be prepared prior to implementing SLM measures in these clusters of villages.

Exhibit 11. Village-Level Feedback on VLUPs

Punjab – ***9 villages visited***	***KP – 7 villages visited***
-Only 2 of the 9 villages visited indicated activities related to VLUP preparation. These were both among the 4 villages visited in Chawkal District. It was said that the other 2 districts visited did not do any VLUPs. -The first of these 2 villages with VLUP prep experience indicated the CBO does not have a copy of the VLUP and is not aware of its use. -The second of 2 villages indicated a team had come to do a survey for a VLUP, but they did not receive a copy of the VLUP and do not know about its use.	-Only 2 of the 7 villages visited indicated activities related to VLUPs. These were both in Lakki Marwat District -Both of these 2 villages indicate they do not have a copy of the VLUP **An additional village not visited joined one of the KP village meetings with the TE Team and shared a VLUP success story: They had the VLUP and used it for getting funding from PPAF and other donors (Rs. 8 million, or about USD50,000 for improvement of livelihood assets).
Balochistan ***-4 villages interviewed***	**Sindh** – ***2 villages interviewed***
-3 of 4 villages recalled either a plan (2 villages) or just a map being prepared, but none indicated that any use had been made of these plans. -None of the villages had a copy of the plan nor map that interviewees knew of. -1 village indicated they had a chart of prioritized activities resulting from VLUP work.	-1 of 2 villages recalled a VLUP being prepared. -That one village has a map and chart of prioritized activities, but did not indicate that any use had been made of the plan.
Overall Summary (22 villages in total)	
-8 of the 22 villages interviewed (or 36%) recalled VLUPs or VLUP surveys -Of the 8, none has a copy of the full VLUP, but one has a copy of a chart of prioritized activities, and another has both such a chart and a map. -There is a success story from a KP village not included in our overall interview set but that attended a meeting in one of the villages we visited. They used the VLUP to get funding (about USD50,000) from PPAF and other donors for livelihood-related activities.	

As for the 7 DLUPs, we did not receive any strong feedback that these were being used to make decisions on SLM measures or land quality improvement initiatives, generally. There was, however, some positive feedback from Balochistan stakeholders that the DLUPs are a great tool for new officers assigned to districts in the area, as they can use the plans to get acquainted with the local terrain. Some stakeholders also hinted that the DLUPs were used in determining the layout of 10 BTTP initiatives, though this was not confirmed. We found that, while it appears the DLUPs have been shared with some line agencies, they may not have been comprehensively shared with all relevant line agencies and were not passed to the agencies that did receive them in an official way. If the PP&DDs were to share the DLUPs in an official way once they are improved per recommendations below and ask the line departments to incorporate them into their planning process, the impact might be greater. This may be possible in some of the provinces. In the case of Punjab, however, we note that Punjab has other tools, notably *Punjab Special Strategy* and *Punjab Growth Strategy*, that take precedence, so that DLUPs may need to be somehow integrated with these if they are going to get more attention.

Recommendations on LUPs:

1. DLUPs and VLUPs could be important tools for promoting dryland SLM, both for ensuring that un-ecological conversion of land use does not occur and for determining an effective mix of SLM measures for each village. *(a) Going forward, VLUPs prepared should be of higher quality and more specific; and, also, existing ones should be revised accordingly by the responsible IPs. They should clearly encompass all four of the key aspects of dryland SLM as identified in this report (see recommendation 3 below)*. Sindh is still planning a number of VLUPs (up to 45 in total) for the additional clusters of villages it will be doing SLM work in during 2021 with its Rs 200 M provincial SLM funds for the project. These and any new VLUPs done in other provinces should aim for a much higher quality than achieved so far and follow the VLUP guidelines developed by the project. Existing VLUPs may also be improved to meet these guidelines. In all cases, background analysis and current land uses should be in-depth and not generic and proposed measures should be specific, including scale and other details, budget, and action plan. An M&E plan along with recommended steps for keeping the VLUP updated should be included. *(b) The DLUPs should be revised by the responsible IPs to be of higher quality and more specific*. *They should clearly encompass all four of the key aspects of dryland SLM as identified in this report (see recommendation 3 below).* Revisions should consider the project-prepared DLUP guidelines. In particular, proposed measures should be more specific and tailored to the on-the-ground situation and details should be given (e.g. area, species to be planted, etc.). An action plan, budget, and M&E plan, as well as plan for updating the DLUP in the future, should all be included.

2. *If the DLUPs are improved per the recommendation above, then, in order to leverage the work that has been done, it is suggested that the Secretary of each of the four provincial PP&DDs send the DLUPs to the provincial line departments and relevant district counterparts, asking them to adopt these and incorporate them into their sector plans.* The accompanying letter should further emphasize that land should not be converted from the uses indicated unless ecological benefits (and absence of negative ecological impact) are clear. In the case of Punjab, there will be a need first for these plans to be shared with those within the PP&DD that are preparing the *Punjab Special Strategy* and *Punjab Growth Strategy*, asking them to incorporate the plans into these strategies.

3. *So that the VLUPs and DLUPs serve the SLM concept well, it should be ensured that additional DLUPs and VLUPs, as well as revisions of existing ones, emphasize the four aspects of dryland SLM identified in this report: (a) inter-sectoral, multi-initiative approach to improving land quality in and around villages in arid areas, with initiatives of different types (e.g. water conserving irrigation, water table replenishment through rainwater ponds, and appropriate forestry and grassland reseeding) taking place in the same village; (b) an emphasis on appropriate land uses and avoidance of ecologically inappropriate land conversion; (c) central focus on both conserving water and replenishing the water table; and (d) integration of all of the foregoing with increasing rural incomes/ poverty alleviation.*

DSS: As noted, the project never carried out preparation of Decision Support Systems (DSSs) for the provinces, even though this concept is explicitly stated in the statement of Outcome 3. Evidence shows that UNDP repeatedly emphasized to the project the need to carry out the DSS, both in the annual PIRs and in other communications. The TE Team heard different reasons of why the DSS was never implemented, the chief two being: (1) lack of funds because UNDP did not realize its committed co-financing to the project and (2) difficulty in getting data needed for the DSS from provincial line departments. Despite challenges, we think the project should have put more effort into realizing this target or, at minimum, provide a different kind of argument for not pursuing the DSS - one that explains why the DSS would not be useful or not viable in Pakistan as a means of supporting dryland SLM initiative decision-making. Indeed, given the resistance to carrying out the DSS, perhaps a serious discussion should have been carried out on the rationale for not moving forward with the DSS. The project did spend USD4,307 on preparing an RFQ for the DSS (*Proposal Development For Decision Support System Implementation*). The document produced even includes formatted tables to be included in the RFQ and an explanation of how bidders will be evaluated. It would have been useful, however, if the team had discussed in advance with the contractor the potentially available DSS budget and if the RFQ then provided a breakdown of estimated costs so that it would be clear what was being proposed was viable within the project's budget. Previous experience suggests a budget of USD125,000, including preparation of the system and training of the provinces, could have been reasonable.

As for the argument that there were not enough funds for the DSS, we believe that the project could have found on the order of USD125,000 to implement the DSS. Indeed, spending of funds tended to be slow, such that the project requested and was granted an eight-month extension. Further, looking at how funds were spent, it would have made sense to allocate such an amount to a key target of the project rather than spending in on areas less clearly tied to targets. For example, rough estimates of total spending on various major activity areas indicate that USD225,326 was spent on awareness materials including brochures and leaflets. (This is indicated not to have included preparation of the content of any of the project's knowledge documents, but instead include only printing of some of them, such as of subsections of the *Field Based Training Manual*, for distribution to villagers). It seems that out of this amount, USD125,000 may have been reserved for the DSS instead. The original signed ProDoc budget for Outcome 2 (which includes the DSS) was USD499,330. Yet based on rough, unofficial estimates of the amount spent, if the amount used for project team salaries is subtracted, we find that only USD167,326 of expenditures (around one-third) is accounted for.

As for data acquisition, this is a challenge faced in many countries. Given the large project team and also the partners in MoCC and each of the provincial PP&DDs, it seems there would have been a way to leverage both the team and government partners to get the needed data had this been a focus of efforts.

Recommendation for future projects when a major activity is failing to materialize: In the future, if UNDP encounters a similar situation, UNDP as IA should get down to the bottom of why the major activity is failing to materialize. A lesson learned in this case is that repeatedly bringing up the activity in the annual PIRs may not be enough to make it happen. The project team (and if relevant the IP) should explain the reasons that they are not carrying out the activity. And, then those reasons need to be examined as we have here and then debated. There may be a deeper reason for non-delivery, such as that the project team and/or IP believe the activity is not going to be beneficial. In that case, it would be worthwhile to debate the merits of the activity in depth, rather than focus on surface explanations of why the activity was not done. We suggest that, after initial discussions of which reasons for non-delivery may be valid and which may not be, UNDP require written explanation from the project team the reason that the major activity is failing to materialize. Next steps could seek out expert opinion if there is a technical question or PSC review if it is a question of priorities, before finalizing a decision of whether to pursue the activity after all. If a decision is made to move forward, a detailed plan with sub-deliverables and due dates should then be required to be prepared.

7. Outcome 3 Results/ Effectiveness: On-the-Ground Implementation of SLM Measures

A review of the statement for Outcome 3 (below) reminds us that its main aim is the scaling up of on-the-ground implementation of SLM measures in the 14 project districts of the 4 project provinces. The outcome statement further specifies that the upscaling will take place in 200 project villages and across landscapes of 800,000 ha. The mention of the 800,000 ha is ambiguous, as one might interpret it to be the total area of the 200 villages, or, alternatively, one might guess it is the area of land targeted to be improved. Considering that the project's individual indicator targets for "land improved" for each of farmland, forestland, rangeland, and sand dune land in aggregate add up to 800,0000 ha, we can conclude that the statement does mean to imply the latter --- that the total area targeted to be improved by SLM measures is 800,000 ha. Yet, this target seems quite high. And, as noted earlier with regard to its breakdown by different land types, we were unable to get information on the methodology used in computing it from either the project team or the project designers.

> Outcome 3: On-the-ground implementation of climate-resilient SLM activities is up-scaled in 4 provinces [Punjab, Sindh, Balochistan, & Khyber Pakhtunkhwa], 14 districts and more than 200 villages across landscapes covering 800,000 ha based on successful interventions conducted during the pilot phase addressing integrated land and water management by local communities that improve livelihoods, restore degraded ecosystems and biodiversity and build resilience to climate change

Achievements/ effectiveness related to Outcome 3 statement: Progress towards the project objective indicator targets and towards the outcome's indicator targets are provided in more detail in Section 4 and Annex 2. In Exhibit 12, we show some of the overall results (in the right column) as a basis for commenting on how well the outcome statement itself is met. Provincial subtotals and other breakdowns are included so the reader can get a feel for how the numbers add up. As compared to the outcome statement, the project does quite well in terms of number of villages (200 targeted, 193 achieved). Further, our findings, as reflected in the income numbers in the table, show that the SLM measures are improving livelihoods and are thus quite effective. The estimated weighted average annual HH income increase is Rs105,932 over 4,152 HHs. Total beneficiaries, including indirect ones (those whose land is not directly improved, but benefit in other ways, such as access to water for their livestock or reduced wind erosion on their land), are 13,127 HHs. The indicator for land area improved is the one that falls far short, with 19,320 ha improved (including directly and indirectly improved by project measures or by replication) as compared to a target in the outcome statement of 800,000 ha.

Exhibit 12. Key Results Directly Related to Aspects of Outcome 3 Statement

Item	Punjab	KP	Balochistan	Sindh	Total
LAND: Area Improved Directly	1,527.8 ha	2,322.6 ha	90.1 ha	26.8 ha	3,967.3 ha
LAND: Area Improved Indirectly	6,101.4 ha	4,475.7 ha	1.6 ha	120 ha	10,698.7 ha
LAND: Area Improved via Replication	4,263.2 ha	300.8 ha	90.0 ha	0.0	4,654 ha
LAND: Total Area Improved†	**11,892.4 ha**	**7,099.1 ha**	**181.7 ha**	**146.8 ha**	**19,320 ha**
VILLAGES: No. with New Project SLM Measures	**83 villages**	**57 villages**	**37 villages**	**16 villages**	**193 villages**
BENEFICIARY HHs: Number Direct‡	2,980 HHs	1,766 HHs	289 HHs	110 HHs	5,145 HHs
BENEFICIARY HHs: Number Indirect‡	5,600 HHs	947 HHs	874 HHs	561 HHs	7,982 HHs
BENEFICIARY HHs: Total Number	**8,580 HHs**	**2,713 HHs**	**1,163 HHs**	**671 HHs**	**13,127 HHs**
HH INCOME INCREASE IN ANNUAL INCOME: Weighted Average for Direct Beneficiaries* (number of HHs considered in calculation)	**Rs106,288 (2,529 HHs)**	**Rs43,201 (1,461 HHs)**	**Rs783,000 (124 HHs)**	**Rs284,737 (38 HHs)**	**Rs105,932 (4,152 HHs)**
% HH INCOME INCREASE (base of Rs720,000/yr)*	**+15%**	**+6%**	**+109%**	**+40%**	**+14.7%**

†Includes area of land directly treated and surrounding land benefiting, if any. Also includes replication area and again any surrounding land benefitting, when replication stimulated by project.

‡Includes replication when stimulated by project. Direct beneficiaries typically have direct benefit to their income/ productivity from measures taken on their land. Indirect beneficiaries benefit in a lesser way from measures on other peoples' land, such as by being able to use a pumped water holding pool for livestock drinking water.
*Only includes averages for measures for which we obtained estimates of reported income increases. These measures covered 4,152 of the 5,145 direct beneficiary HHs of all measures. For the percent increase in income, the number of HHs encompassed are the same as for the cell directly above.

There are some different aspects of the gap between the 19,320 ha of land area improved and the very ambitious 800,000 ha target to consider. Progress towards targets by land type, e.g. agricultural land, forest land, etc., are discussed in Section 4 and Annex 2. Here we assess the general target for land area improved overall. First, the project land area improvement indicators assume fairly substantial baseline levels. If these are added together and then subtracted from the 800,000 ha target, the target for newly improved land is 469,400 ha. We might then ask, "How realistic is a target of 469,400 ha of newly improved land area?" We believe if this area is, as we would define the target, limited to: (i) the area directly improved from a measure, (ii) its surrounding area indirectly improved, and (iii) replications attributable to the project, then the target of 469,400 ha would be extremely ambitious. According to our rough estimates, achieving such a target would require not only that a higher proportion of funds be spent on field measures (probably a reasonable challenge), but also that around 8.5 times replication is achieved during the lifetime of the project (probably an unreasonable challenge). According to our estimates, had the project been operating outstandingly well, (a) keeping the same low cost rates per measure in the field that it had, (b) increasing the share of provincial spending going directly to field measures from about 50% (as in the case of Punjab and KP) to 75%, (c) spending all committed funds in all four provinces (not only in Punjab), and (d) in Balochistan and Sindh carrying out measures that had much more land area benefit to the surrounding areas than the measures they carried out, it might have achieved around 50,000 ha land improved from its own measures in the field, including indirect benefit to surrounding areas. With 3 times replication during the project lifetime (ambitious but not unheard of), the project could then have achieved a total of 200,000 ha of land improved, or 50,000 ha per province. For a more detailed explanation of this "maximum reasonable achievement" estimate, please see the box of Exhibit 13.

Exhibit 13: Back-of-the-Envelope Estimate of what a "Reasonably Maximized" Project Might have Achieved in Terms of Land Area Improved

Because Balochistan and Sindh seriously underperformed in land area improved, for the estimate we focus on Punjab and KP. Punjab spent all of its provincially allocated funds, whereas KP spent a lot less. So, Punjab can be our anchor in determining what is possible for a project that is able to fully mobilize funds. If we consider total funds spent at the provincial level whether for on-the-ground measures or other activities and staffing at the provincial level, Punjab spent about 253.557 M Rs and KP spent 130.412 M Rs, each spending about half on the field measures (not including IP transport and per diem costs) and half on other things. In terms of total land area improved (including replication), then Punjab spent Rs 21,300/ha and KP 18,370/ha, when including all funds spent at the provincial level. Sources suggest overall that SLMP's allowances for various measures were quite low and KP's particularly so. Nevertheless, assuming the spend per ha should be the average of these two, then Punjab may have increased its total area by 7.5% with the same spend and the same 50/50 breakdown of funds spent on field measures. We next assume that instead of 50% of funds spent directly on field measures that 75% were. Not including replications, Punjab has achieved 7,629.2 ha of improved land. When adopting the two assumptions, according to our calculations, Punjab, not including replications, could have achieved 7,629.2 ha x 1.075 x 1.5= 12,302.1 ha. And, all four provinces operating as well would have achieved a total of 4 x 12,302.1 ha or about 49,208 ha (not including replications). Whereas our current estimates show Punjab achieved about 0.56 times replication (simply comparing replication area to area benefiting from project-paid-for measures), to achieve the target of 469,400 ha, 8.5 times replication would have been required during the lifetime of the project (469,400/12,302 = 9.5 and we subtract 1x for the project-paid-for achievement). To be more reasonable, a project doing really well, might have achieved 3 times replication. As such, the maximum we might expect to have been achieved (again assuming high efficiency, with 75% of funds spent at the provincial level spent on the field measures themselves, and 3 times replication) is 196,832 ha (49,208 x 4), or only 42% the actual target (with baseline removed, 469,400 ha) and about 25% of the 800,000 ha without subtraction of baseline values (which would be congruous with how the project team was addressing the targets, starting from a baseline of zero).

A question in computing what was actually achieved in improved land area (as well as what could have been achieved) has to do with how the surrounding area improved by SLM measures is calculated. Some might argue we underestimated this and the areas improved are larger than we estimate, thus making the total achievement larger. Our calculations are based on findings of the national consultant in the field. Future work should take a closer look at how various measures improve surrounding land area not directly treated. A strategic approach, trying to maximize "area improved" (though of course finding a balance with quality of improvement) may select those interventions that tend to achieve relatively large areas indirectly improved per unit cost. (More information on "surrounding land area improved" metrics is provided later in this section.)

Overall, though, our rough estimates suggest that the project target was excessively ambitious. Looking at top achiever Punjab, we might see that the main levers for increasing land areas improved would have been to (a) increase replication, (b) increase share of provincially spent funds going to field measures, and (c) focus on measures that provide strong "surrounding area land benefiting" results. Regarding (a), the project had aimed to increase replication with financing mechanisms, but these were not pursued very seriously. Regarding (b), it does seem that a higher proportion of funds going to the on-the-ground measures should be an important aim in the future. Fifty percent seems quite low, though it is true the PCU budgets also included capacity building in the villages and CBO formation work. Further, IP travel and per diem costs were probably significant; and working with government IPs saved funds that would otherwise go to sub-contractors for their personnel and overhead costs. (Note: In a few cases, the project did work with NGOs as a kind of sub-contractor for on-the-ground SLM measures, notably in Sindh.) As for (c), Punjab and KP did much better than Balochistan and Sindh in having a good portion of measures that provided "surrounding area land benefits," though perhaps could have adopted an approach giving a larger share of the budget to measures with especially high benefits in that regard.

Related recommendations:
1. As noted earlier, project design for land improvement projects should clearly state how land area targets are expected to be achieved. The project design documents should specify which particular areas are targeted and how the quantitative target was arrived at and could be expected to be achieved.
2. To maximize land areas improved, future SLM projects should consider strategically selecting measures that have strong "surrounding land area improved benefits" and designing activities or mechanisms to facilitate a high level of replication (discussed further below).
3. Projects of this nature and future SLM work should aim to maximize the percentage of funds spent on measures in the field and lower overhead. The metric of amount of and proportion of funds spent on measures in the field should be tracked on an ongoing basis.

SLM measures adopted and need for them: Exhibit 14 shows the range of measures adopted as part of SLMP II and the areas improved (including both surrounding areas improved and replication). The table also has a column for comments on whether, according to villager feedback, the measure was indicated to be fully innovative or partly innovative or not. With 20 items, the reader can see an impressive variety of initiatives, most of which address agricultural land. To assess relevance of a project, we often assess whether investments are new and innovative or otherwise would not have occurred without the project. In the case of SLMP II, we find a bit of a conundrum in terms of measure selection. Those measures that were found to be "completely new" to the areas often provided very high income benefits (e.g. the combined system in Balochistan and Sindh of drip irrigation, pumped water holding pools, low water consuming crops, and, in Sindh, solar PV pumps), but did not provide the strong benefit to the surrounding land that we found with measures that were "not new" to the area (such as were more typical in Punjab's and KP's implementation of SLMP II). The referenced Balochistan and Sindh systems mainly provide benefits to the small area irrigated, as compared to "not new" measures, such as rainwater harvesting ponds (which might recharge a water table over 50 acres) and dry afforestation (which might have benefits in reducing wind erosion over an additional area two times the area planted, as well as

Exhibit 14. SLM Measures with Estimates of Areas of Land Improved (including surrounding area improved and replication) and Comments on Innovativeness (based on village interviews) / Land area in hectares

Measures	Punjab	KP	Balochistan	Sindh	Innovative?/ New to the Area?
1. Rain Water Harvesting Pond (with or without conveyance structures for irrigation)	5,174	849.8		129.7	Conveyance system 1st time (pond, which provides greatest land area benefit, not new)
2. Water conveyance system (without rainwater harvesting pond)	70.8				1st time in village(s)
3. Inlet/Outlet Structures		1,900			Community innovated (1st time wooden gates)
4. Earthen Bunds		90			New design of traditional structure (1st time)
5. Gated Structures		2,000			New material of traditional structure (1st time)
6. Spillways		154			New design of traditional structure (1st time)
7. Retaining Walls/ Spurs		150			*Not new to area*
8. Contour trenches, spurs, and eyebrows			6.5		NA
9. Drip Irrigation – Pumped Water Holding Pool – low delta crops or orchards			121		Some say completely new; others say nearby village had these, but 1st time for their village
10. Solar PV Pump Initiatives (likely all with pumped water holding pool, drip irrigation)				13.8	1st solar pump and drip irrigation in village
11. Fruit orchards (with piped irrigation system)		23.9			Hosed irrigation new to community (1st time)
12. Other water conserving irrigation and low delta crops (but no water holding pool)			41.7	3.2	Drip irrigation, etc. new. Low delta crops new (e.g. olive trees introduced, replace apple trees)
13. Shelterbelts	636	105.7			*Not new to area*
14. Woodlots ("Energy Plantations")	1,633	777			*Not new to area*
15. Nurseries	3.6	0.7	NA		Fruit nurseries new, forest nurseries not new
16. Kitchen gardens (each 12 ft x 10 ft)				0.07	NA
17a. Dry Afforestation – benefit to ag land	388.9	126	0.8		*See below*
Agricultural Land Subtotal	**7,906.3**	**6,177.1**	**170**	**146.8**	**---**
17b. Dry Afforestation –benefit to forest land and beneficiaries	777.7	252	1.6		Not new to the area, but first time on community land
Forestland Subtotal	**777.7**	**252**	**1.6**		**----**
18. Rangeland Reseeding (in some cases with controlled grazing and veterinary support)	3,208.4	380			Not new to the area, but had not been done in a very long time and is really needed.
19. Rangeland Improvement Plans (rotational grazing)		0.0	10		NA
Rangeland Subtotal	**3,208.4**	**380**	**10**		**---**
20. Kana Plantation		290			Kana mechanization was new with SLMP I
Sand Dune Stabilization		**290**			**---**
GRAND TOTAL	**11,892.4**	**7,099.1**	**181.6**	**146.8**	**---**

providing water table recharging benefits). Somewhere in-between in "innovativeness" were measures that were "traditional," but with innovation. These were mainly irrigation structures using new materials.

For those measures that were not as new, in some cases (especially tree related initiatives, such as woodlots, shelterbelts, and dry afforestation), it appeared others were supporting similar initiatives in the area, raising the question of whether GEF "incremental" SLM support was really needed. This might have been especially true in KP, where BTTP was launched in 2014 and doing tree-planting work since that time, though also is relevant now in the other provinces, as 10 BTTP was launched in 2018. Given the needs of communities exceeding supply and given the differentiating SLMP II features, such as dry afforestation situated on community land rather than on state land as other government programs had done previously, the work appears justified. Yet, going forward, SLM efforts should take into consideration what others are doing and where the gaps are (if indeed others are supporting on-the-ground measures in the area) in villages selected for integrated SLM efforts.

Exhibit 14 highlights in light yellow, those measures estimated to have contributed over 1,000 ha to project "land improved" targets in a certain province. The top two are rainwater harvesting ponds benefitting 5,174 ha in Punjab and rangeland reseeding benefitting 3,208 ha in Punjab. (Rangeland reseeding was estimated to have a high surrounding area benefit of 3 times the area seeded.) The others are gated structures and inlet/outlet structures in KP and woodlots in Punjab.

Recommendation: We suggest that both to distinguish itself as innovative and needed and at the same time to maximize land improvement achievements, SLM efforts, in measure selection should emphasize:

1. Integration of multiple measures in each village as the "innovation." Some measures may be new and some not new, but integration with a strategy to improve land quality and reduce aridity levels is the "innovation." [See also sub-section below on Mix of Measures in Single Villages.]

2. A focus on measures that bring strong land improvement achievements in terms of surrounding land area, balanced with livelihood benefits. The measures that provide strong land improvement achievements can be combined with other measures that bring strong income benefits, such as pursued in Balochistan and Sindh. And, indeed, income benefits should also be a priority. Yet, if these other measure do not provide strong land area improvement benefits, they should not be carried out in isolation as a part of SLM programs. [See also next sub-section on Land Area Benefits of Various Measures.]

3. A recognition of measures being supported by other initiatives. As some measures (particularly woodlots, shelterbelts, and dryland afforestation) may be supported extensively by 10 BTTP or other programs, if such work will be carried out on community land as well in the same arid villages SLM targets, then SLM support for other measures might be integrated with 10 BTTP support. That is, in such cases, SLM might focus on non-tree initiatives, such as rainwater harvesting ponds, irrigation structures, drip irrigation, low water consumption crops, and rangeland improvement.

Land area benefits/ effectiveness of various measures: Exhibit 15 shows the metrics we used for additional areas of surrounding land that are improved by various measures, beyond the land area directly treated. These are based on findings in the field, though certainly further work and refinement is needed for SLM work going forward.

Recommendation: Future SLM work should include more scientific assessment of the "surrounding area land improvement benefit" of various SLM measures. With a stronger basis for estimating the land area benefits provided by various SLM measures, a strategic design of a "package" of SLM measures for each village should then be untaken. This strategic design will aim for a balance of maximizing land area benefits and enhancing villager income.

Exhibit 15. Preliminary Metrics for Estimating Additional Land Area Improved by SLM Measures – beyond that Land Area Treated Directly

Measure	Area Improved beyond Area Directly Treated	Measure	Area Improved beyond Area Directly Treated
1. Rain Water Harvesting Pond (with or without conveyance structures for irrigation)	+20.2 ha/ pond (50 acres/ pond)	11. Fruit orchards (with piped irrigation system)	0.0
2. Water conveyance system (without rainwater harvesting pond)	0.0	12. Other water conserving irrigation and low delta crops (but no water holding pool)	0.0
3. Inlet/Outlet Structures	+1x area planted (reduced erosion)	13. Shelterbelts	5.46 ha/ 3 ave km SB (assumes tree height of 10 ft) (reduced wind erosion)
4. Earthen Bunds	0.0	14. Woodlots ("Energy Plantations")	+2x area planted (reduced wind erosion)
5. Gated Structures	+3x area planted (reduced erosion as well as flood control)	15. Nurseries	0.0 (unless it's proven areas planted with low delta nursery plants/ trees that would otherwise not have been planted with these)
6. Spillways	0.0	16. Kitchen gardens (each 12 ft x 10 ft)	0.0
7. Retaining Walls/ Spurs	0.0	17. Dry afforestation	+2x area planted (1/2 forestland, ½ ag land) (water table recharge and reduced wind erosion)
8. Contour trenches, spurs, and eyebrows	0.0	18. Rangeland Reseeding (in some cases with controlled grazing and veterinary support)	+3x area reseeded
9. Drip Irrigation – Pumped Water Holding Pool – low delta crops or orchards	0.0	19. Rangeland Improvement Plans (rotational grazing)	0.0
10. Solar PV Pump Initiatives (likely all with pumped water holding pool)	0.0	20. Kana Plantation	+1x area planted (reduced impact of wind erosion)

Mix of measures in single villages – need for better integration: Exhibit 16 summarizes the mix of SLMP II measures indicated by the villages we interviewed to have been implemented in their village. A total of 22 villages are included, 16 interviewed during site visits (all the Punjab and KP villages) and 6 by telephone or video call (all the Balochistan and Sindh villages). Scanning the mix of measures in various villages shows some problems: (1) For Balochistan and Sindh, there is sometimes only one major measure per village (or one major measure plus nursery support). As noted, these major measures have very positive income benefits for the lucky few families. They also may provide indirect benefit, such as water access for daily use or livestock to a good number of other families. In terms of land improvement, however, they only directly improve a small area of land and do not provide a wider surrounding land area benefit. And, particularly in Balochistan, where the water table is known to be going down, opening up bare land to irrigation, even when it is efficient irrigation, without doing work to replenish the water table is troubling. Our understanding is that the project design calls for Balochistan to establish rainwater harvesting ponds, which do replenish the water table, but that this was not done. Instead, the only "ponds" established were pumped water holding pools. These pools facilitate drip irrigation, so are positive in that regard, but they do not replenish the water table. (2) Punjab and KP villages included more measures that have benefits to area surrounding the land treated. And, the quantity of measures usually meant that more

villagers per village were benefiting, though perhaps not at as high of an income benefit as the lucky few for the measures in Balochistan and Sindh. Yet, there is a problem in a number of villages of lack of diversity of measures and/or lack of integration of measures from various sectors. All villages in Khushab District and Bhakkar District in Punjab, in particular, show only Forest Department type initiatives. In Lakki Marwat District of KP, similarly, 3 villages are clearly Forest Department villages, while the other one is clearly a Soil and Water Conservation Directorate village. Measures from the two departments were not integrated. In DIK District of KP, 2 villages are clearly Soil and Water Conservation Directorate Villages, while one is clearly a Forest Department village. (3) In addition to lack of integration of different types of measures in the same village, in some cases the SLMP II support received by a particular village is extremely limited, perhaps just covering one measure. In such a situation, it may be difficult for the village to really understand the concept of SLM or one day fully benefit from the potential of SLM to turn around the situation in the village. Examples include "Chakwal #2," with just one rainwater harvesting pond, or "Khushab #1," with just one woodlot, or "Bhakkar #2" with only two woodlots and no other measures. (Note: We have not used the names of the villages in Exhibit 16 and instead have just numbered them for each district.)

Exhibit 16. Findings from Field Visits on the Mix and Scale of SLM Measures per Village
Notes: 1. Areas indicated are directly treated area only.
2. Villages with asterisk (*) are randomly selected

Many villages lack integration of a range of different types of measures. Better integration recommended for future. Some villages lack measures that provide strong land area improvement benefit. Attention to land area improvement of measures recommended for the future.

Balochistan Villages (*district indicated, but not village name*)			
Qilla Saifullah #1 1. One drip irrigation system – 5 acres previously bare land	**Pichin District Village #1** 1. One system: Drip irrigation, pumped water pool, trellises – 4 acres 2. Two greenhouse nurseries (trees and grapes)	**Pishin District Village #2*** 1. Two systems of drip irrigation, olive trees, and (expected) water holding pools- 5 acres total 2. Nursery with orchard tree and forest tree saplings	**Lasbella Village #1** 1. Two pumped water holding pool systems – 22 acres
Sindh Villages (*district indicated, but not village name*)			
Tharparkar District #1* 1. One system: solar pump; water holding pool; drip irrigation; vegetables on bare land (had dug well already) – 2 acres previously bare land		**Tharparkar District #2*** 1. One system: solar pump; water holding pool; drip irrigation; vegetables on bare land (had dug well already) – less than 5 acres	
Punjab (*district indicated, but not village name*)			
Chakwal #1 1. One water conveyance system – 5 acres (village extended to 10 acres) 2. One fruit plant nursery (project provided 2 tunnels, nursery equipment, planting stock) 3. Dry afforestation on 40 acres (Kikar, Phulai trees)	**Chakwal #2** 1. One rainwater harvesting pond of 1 acre in area (no irrigation support)	**Chakwal #3** 1. Two Rainwater harvesting Ponds (+1 from SLMP) and three lift irrigation system – total 45 acres irrigated 2. One Fruit Nursery	**Chakwal #4*** 1. Five rainwater harvesting ponds, two with water conveyance system - 10 acres total irrigated 2. Dry afforestation at 4 sites (250 Acres) 3. Two fruit nurseries
Khushab #1 1. Eleven woodlots (peter engine+ pipes) – 82 acres total 2. Three shelterbelts (peter engine, pipes, boring for irrigation) -22 acres total 3. Two forest nurseries	**Khushab #1** 1. One woodlot – 5 acres	**Khushab #3*** 1. Thirteen woodlots (peter engine + PVC pipes) – 65 acres total 2. Two shelterbelts (peter engine + PVC pipes) – 3.7 acres total 3. One forest nursery	
Bhakkar #1		**Bhakkar #2***	

1. Eight woodlots (40 acres) 2. Three shelterbelts (5.6 acres) 3. One forest nursery: 1 4. Rangeland reseeding: 100 acres		1. Two Woodlots with peter engines bore wells and pipes for irrigation (10 acres total)	
KP (*district indicated, but not village name*)			
Lakki Marwat #1 1. Dry afforestation: 50 ha 2. Kana plantation (sand dune stabilization): 40 ha 3. Woodlot: 201 ha 4. Shelterbelt: 5 ha	**Lakki Marwat #2** 1. Two fruit orchards with hosed pipe irrigation (total 0.4 ha) 2. Five kana cultivation sites (total 90 ha) and two kana harvesting machines 3. Three forest nurseries (total 0.075 ha) 4. Poultry for women in 7 HHs	**Lakki Marwat #3** 1. Twenty retaining walls (20 ha protected) 2. Seven kamara bunds (21 ha irrigated) 3. Thirty-five spillways (35 ha)	**Lakki Marwat #4*** 1. Fruit orchard, hosed pipe irrigation: 0.2 ha total 2. Five forest nurseries 3. Kana machines (1 harvester, 1 kana rope weaving mach. and 1 Kana rope hammering machine)
DIK #1 1. Fifteen inlets/outlets (45 ha treated directly)	**DIK #2** 1. One gated structure (20 ha) 2. Ten inlet/ outlets (35 ha total)	**DIK #3*** 1. Previously shelter belt: reported 13.5 ha (was clear cut) 2. Energy plantations: 46 ha (though 93 ha reported, trees planted on ½ the area specified, with plant to plant spacing of about 7 ft by 7 ft) 3. Previously dryland afforestation reported 100 ha (was clear cut) 4. Orchards: 13 units (5 ha total) 5. Two forest nurseries 6. Poultry distribution: 16 HHs	

*Villages with asterisk (*) were selected at random. Other villages were specifically suggested by project team.

Recommendation: Future SLM efforts should emphasize a "full village" of SLM and implement multiple different measures from different sectors. If, on the other hand, it is found that 10 BTTP or other work is reaching all villages with sufficient SLM oriented tree-type initiatives, then SLM could focus on initiatives of other sectors. At the same time, SLM may be needed as an example to 10 BTTP in how to emphasize water conservation and water table recharging in design of tree-related initiatives in dryland areas.

Replication/ effectiveness in catalyzing future SLM initiatives: One weakness of the project is that it did not generate as much replication as hoped. As discussed, while the targets set for land area improvement are unrealistic, had the project done really well in terms of both efficient use of resources, but even more importantly in terms of replication, it might have achieved as much as 200,000 ha of land improved (assuming 3 times replication and very efficient use of resources). Looking at overall land area improved by project supported interventions (including both land directly improved and indirectly improved), the total area is 14,667 ha. Land area estimated to have been improved by replication was only 4,654 ha overall. This suggests an overall replication rate of only 0.3 times. When we asked villages about replication, they often mentioned that other villagers were interested in replicating, but lacked resources. Or, at other times, for more standard interventions, it was said that replication was expected by 10 BTTP. Yet, such replication would probably not be attributable to the project.

Recommendation: Future SLM work and future projects of this sort should include in their design methods to get measures replicated. This project had in its design some efforts to make financing available for replication, but these activities as designed did not get much attention from project implementers.

Quality of on-the-ground work: Putting the already discussed selection and mix of measures aside, in most cases we found the quality of implementation acceptable. Yet, there were some technical issues, beneficiary selection issues, and sustainability issues highlighted as follows. More detailed comments highlighting such findings from the national consultant's field work in Punjab and KP are provided in Exhibit 17.

Sustainability: A few key areas of sustainability are noted with more details in Exhibit 17. The many nurseries set up by the project are of particular concern with regard to sustainability. Many are having trouble selling their plants. And, others, took the initiative as a one season business and did not continue it. For many forestry-type initiatives (woodlots, shelter belts, and dry afforestation), there is a lack of management plans, whereas beneficiaries would benefit by being provided a guide on when to cut and how to maintain these. Similarly, there is a lack of plans to maintain rainwater harvesting ponds and water conveyance systems when damaged. In one case, the TE Team discovered that shelter belts and dry afforestation had been clear cut. This is further elaborated below.

Technical and quality: A key issue is that a substantial portion of non-orchard trees planted under SLMP II are eucalyptus. While the topic is not without controversy, it is generally accepted that eucalyptus is a high-water consuming tree. For a project focusing on reducing aridity and raising water availability, it seems that indigenous trees or species known for lower water consumption and not eucalyptus would have been the appropriate choice. The substantial presence of eucalyptus in SLMP II plantings show the lack of guiding conceptual technical direction of this work.

In the last village visited in DIK, it was found that woodlot trees were planted on half the land area they should have been (so the spacing was too low). The shelterbelt and dry afforestation trees had been clear cut. And the dry afforestation trees, when standing, were actually on irrigated land, so weren't really dry afforestation.

Beneficiary selection: CBO membership in project villages is not found to be a strong cross-representation of the full village population. Instead, it may tend to reflect interest groups that worked together before and relatives. In general, future SLM work may make more efforts to diversify CBO membership and beneficiaries. Often for a village we interviewed, we got the impression that the main beneficiaries (if more than one household was even claimed) might be close relatives. Further, in the randomly selected village in DIK District KP we found that very large amounts of "target" for multiple measures were all given to just one household. This included what should have been 13.5 ha of shelterbelt, 93 ha of woodlots and 100 ha of dry afforestation – all to one family. This is quite astonishing when you consider a typical allocation is 5 ha of woodlot for one family! Interestingly, this is the same case in which it was found the shelter belt and dry afforestation (which wasn't really dry afforestation because it was on irrigated land) were clear cut and the woodlot area was only half of what it should have been as the trees were planted too close together.

Exhibit 17. Technical Observations on Quality and Sustainability of On-the-Ground Measures as Noted during Punjab and KP Field Work

Ponds and Irrigation Systems
-As for ponds with water conveyance systems, it was found villagers were extending the water conveyance to irrigate more areas. Yet, in one case, the pond and system were damaged by flood and heavy rains. There did not seem to be a clear strategy for repair of the pond. In general, proper arrangements for future operation and maintenance of the ponds and irrigation system were not clear. -At one site in Chakwal District, Punjab, a lift irrigation system had been established on a Dam Department dam reservoir, but no formal permission had been sought. Formal follow up should be carried out to ensure sustainability. This case is, however, a success story, because, seeing the small-

scale lift irrigation system's success, the Dam Department is now planning to replace a gravity flow design with lift design when it installs a larger system at the site to replace this interim one.

Nurseries

-A fruit tree nursery visited was not properly maintained. The plants were covered by weeds and they were not placed in proper order. It looked like an abandoned nursery. From the situation it seemed that the nursery would not be continued after the project. Sustainability is a question mark.

-A forest nursery visited was in good condition, though focusing wholly on eucalyptus. The owner had scaled it up from 23,000 to 100,000 plants. 10 BTTP will provide opportunities for the nursery business to flourish. Support in marketing and connecting sellers with buyers is needed.

-In another village, the forest nurseries were treated as a one-time business and not maintained after the first round of seedlings were sold.

-In general, there is a lack of sustainability mechanism for the nurseries. Also, though many mentioned that other villagers were to get plants sold by the nursery at reduced rates, in no case did we find clear plans of how this was to be done. In general, for nurseries there is a concern about how to market the plants and how to guard them so they are not stolen.

-In DIK, some beneficiary HHs were given 5 units of nurseries each, instead of just one.

Woodlots, Dry Afforestation, and Shelter Belts

-In one village over 200 ha of planting targets (shelter belt, woodlots, and dry afforestation combined) were given to just one household. The shelter belt and dry afforestation ended up being clear cut by the owner as he wanted to use the land for other purposes. The woodlot trees were planted on half the land area that they were supposed to be planted on. The dry afforestation (before being clear cut) was not real dry afforestation as it was on irrigated land. This situation indicates three things: (1) Inappropriate selection of beneficiaries and inequitable distribution of project target among the villagers. (2) Inappropriate selection of sites for project interventions. (3) Inappropriate follow up and monitoring.

-A positive development noted in one village is that farmers were sharing the peter engine provided for the woodlots for irrigating agricultural land. This sharing of resources shows how efficiently the project resources were used by the communities.

-In some locales, good quality/ high survival rates of shelterbelt and woodlots was found.

-It is recommended that local, indigenous species Frash (Temarix spp.) be used in Khushab rather than eucalyptus. There is now a big market for eucalyptus in Khushab and a paper and chipboard industry is being established. SLM initiatives, however, should examine the impact of eucalyptus and alternatives in terms of arid land issues, both in Khushab and other districts.

-There was a lack of management plans and these are needed to ensure future sustainable use and proper maintenance. SLM initiatives should develop management/ utilization plans to guide farmers.

Rangeland Reseeding

-An area with reseeding implemented had an overgrazing problem due to lack of enforcement of a proper grazing system. For a long time, there have not been rangeland improvement activities and they are sorely needed. FD staff indicate that one acre of improved grassland produces 5 kg of grass seeds per acre that can be used elsewhere.

-The excessive trend in plantations and woodlots has resulted in rangelands being converted to plantations. Grazing lands shrinking negatively affecting the livelihoods of poor people. Also, indigenous tree species are better for grass growth than eucalyptus, so should be planted instead.

CBO/ Community Liaison and Beneficiary Selection

-In terms of membership, CBOs seemed like farmer interest groups instead of wider community organizations mandated to promote development and SLM practices. This needs to be revisited; and CBOs with broader scope and mandate should be established.

-More than one CBO complained that they had not been given a fair share of activities. IP countered that such CBOs were not proactive enough.

-In general, villagers were satisfied and happy with interventions, sometimes ecstatic.

-One concern of villages in some cases is that the IP (the local forestry department) executes all activities rather than giving them the chance to do it themselves. In other cases, villagers seemed happy

that the local IP (the soil and water conservation department) trained them to do the work themselves. It appears that the villagers are paid for this work, so for that reason prefer to do it themselves.
-In some cases, we found that the community was not properly aware of the project and its objectives.
Other Findings
-In the Khushab, we saw small solar pumping for irrigation, which is more efficient than large diesel engine powered pumps, as the water table is shallow.
-In some cases of village visits, the villagers showed only a limited portion of reported SLMP II measures, so it is difficult to know if all were fulfilled.
-Some areas visited are extremely water stressed and a need is seen for each home to have a rainwater storage tank. Community underground rainwater storage tanks not being properly maintained were observed, suggesting a huge risk of waterborne disease. SLM initiatives could put some attention on making these drinking water storage measures safer.
-Many stakeholder consultations stressed the need for more soil and water conservation activities in water stressed areas. Some also suggested Mazri plantation and mechanization and more women related livelihood improvement activities.
-In a sample fruit orchard with piped irrigation, the irrigation system was not properly maintained and plants were stressed due to lack of irrigation. The owner also needed help in marketing the fruits.
-Kana harvesting and processing elicited enthusiasm from beneficiaries.
-At one site, only 15 inlets/outlets had been constructed. There should have been activities like woodlots, introduction of low delta fruit trees, low delta agricultural crops, etc.
-In KP in both districts, it was found that the two IPs in each (forestry department and soil and water conservation department) worked in isolation through their own CBOs (rather than working with the same CBOs). Integration and linkages were missing.
-In KP, there appeared to be very limited follow up from the PCU, whereas in Punjab such follow up was much stronger.

Recommendations:

1. Sustainability: Future SLM and other field-based projects need to put a stronger emphasis on sustainability. In the case of SLMP II, for example, it would have been better had the implementers supported villagers in developing sustainability plans for various initiatives. The plans would describe how the initiatives would be operated/ harvested (e.g. wood lots cutting schedules) and also what would be done in the case of need of repairs (e.g. water conveyance systems) or other problems. In the case of some initiatives, such as nurseries or fruit orchards, marketing support may be part of the SLM measures' sustainability program.

2. Technical oversight: Future SLM work and other field-based projects should have stronger technical oversight. There should be at least one technical expert checking on technical decisions, such as what types of trees to plant. Had SLMP II had such oversight, the result that one of the main trees planted (aside from orchards) in a dryland SLM project was eucalyptus, known for high water consumption, may have been prevented. Further, such technical oversight may have ensured that water table recharging measures were included in Balochistan's on-the-ground measures. (Note: While there was some strong technical expertise on the project team, implementation strategy somehow did not always translate into this expertise ensuring the technical quality of SLM measures in the field. This will be discussed further in the section on implementation.)

3. CBOs and beneficiary selection: Future SLM work or other field-based projects working through CBOs should put more emphasis on quality CBO membership in formation and project beneficiary selection. CBO membership efforts should aim to get a good cross-section of villagers rather than ending up with CBO membership mainly corresponding to a certain village interest group. Further, efforts to

distribute benefits equitably and to those in need should be made. In particular, giving very large areas of targets to a single household for convenience should be avoided.

Financing for SLM: As noted, village interviews showed that many of the SLM interventions are very welcomed by villagers and generating substantial increases in income. There is a strong interest in replicating the measures, but lack of funds to do so. As such, it is suitable that SLMP II's design had a financing aspect as part of Outcome 3. A centerpiece of this aspect was to be SLM funds – revolving village loan funds that villagers could use to implement SLM activities. Unfortunately, the project did not put much effort in such funds. While 44 new funds are targeted, we found that just two had recently been set up, each in a project village in Tharparkar District, Sindh. Yet, these funds are not really targeted at SLM activities in particular. They are conceived as planting season funds and are expected to be used on seeds and field preparation, though the scope of use is open. Other designed targets of the financing aspect of SLM are business plans, PPPs (public private partnerships), and grants. We found no evidence that any of these other targets had been addressed in any way.

Recommendation: Financing is often critical for replication in projects that demonstrate on-the-ground measures. Project design to promote financing should either be seriously followed up upon or, if needed, course corrected/ redesigned to more viable financing approaches once implementation begins.

8. Sustainability of Results

Sustainability issues have been included in the results discussions of Sections 5, 6, and 7, so are just summarized here. The project was weak in its aim of establishing an enabling environment (Outcome 1), as the two key targets of the outcome, implemented SLM-related policies and established DCCs, were not achieved. Yet, the enabling environment is a key aspect of sustainability. Outcome 2 results are also not sustainable as the LUPs are not being used to a significant extent. Outcome 3 has the most hope of sustainability, as villagers maintain their SLM initiatives and some replication is occurring. At the same time, the project would have done better to emphasize sustainability and not just targets in implementation of on-the-ground SLM measures. This would have included plans for operation and maintenance related to the measures. In some cases, such as the nurseries or fruit orchards, it may have also included marketing support. Finally, lack of financing for SLM measures was confirmed with villagers to be a key barrier to replication, considered a key aspect of sustainability of "scale-up". While the project had specific financing activities and targets incorporated into its design, these were not given much attention by implementers.

9. Implementation

9.1 Institutional/ Management Arrangements/ Implementation Strategy

Relationship of federal level IP and provincial level IPs: Institutionally, a challenge that the project faced is that MoCC, the federal-level IP, and the provincial-level IPs, the PP&DDs, do not have a vertical reporting relationship. Indeed, some challenges mobilizing funds and action may be attributed to this lack of vertical relationship. Some stakeholders suggest that the project might have done better to be in the provincial forestry and environment departments, which do have that relationship with MoCC. In addition, a shift of leadership of SLM initiatives to such departments was also recommended by some on the basis of expertise. The proper home of SLM is indeed a challenging question, given the expertise issue. Yet, given the focus of the project/ SLM on (i) planning and (ii) inter-sectoral approaches to land management, we feel that the selection of the PP&DDs as the home for SLM leadership is correct. The

project might have been strengthened institutionally, had there been a way for MoCC to cooperate with the Planning Commission at the federal level, so that the vertical relationship could be established. And, within the PP&DDs, it would have been better if technical experts in both the agriculture/ soil and water conservation sections and the forestry sections had been involved.

Fund management for projects with combined government and donor funding: Implementation of SLM measures in the field under the project had three different funding sources: GEF funds, provincial funds, and federal funds. These had to be drawn from three different accounts and thus created a lot of paper work and thus inefficiencies for the project team. In the case of Sindh, it was even reported that this "separate accounts" problem is what caused the province to hold up on providing provincial funds to the project. (None were provided during the five plus years of the project, but now that the project is over, the province has recommitted PKR200 million.) UNDP CO had been continuing to operate under PCOM guidelines which require these separate accounts, despite much earlier changeover to NIM globally. We understand, now that new UNDP CO leadership has fully shifted the CO to NIM guidelines, future projects will use the same accounts as government provided co-financing, so the aforementioned problem should be eliminated.

Staffing: In terms of project management arrangements, one thing that comes out clearly in review of spending (see sub-section 9.3) is that the project spent a lot of GEF funds on staffing. Staffing costs estimates provided by the project team come to between 28% to 33% of total GEF expenditures.[6] This may make sense if project staff actually take the place of consultants and contractors and carry out project activities themselves, but if staff are purely project managers, managing others that carry out the work, it is hard to justify this level of staff costs. While we found some role of the project team in carrying out project activities, overall, our findings suggest they were mostly doing project management. [7]
Another related and significant project management issue is that most of the project's GEF-paid staff (six in total) were located in Islamabad, the federal capital. Yet, there were almost no activities (aside from NAP preparation) that were necessarily federal in nature. In contrast, the GEF funds were, by design, only to finance one person, the PPC, in each province, for a total of four persons. In some cases, GEF funds may have provided additional support for a finance and admin officer at the provincial level. Findings suggest that this structure was not conducive to the federal level staff, despite their strong number, generating long-term results for the project. For example, the policy work did not generate a long-term result. To get the policies adopted, actions in the provinces are needed. This might have best been handled by the PCUs, who were sitting in the PP&DDs. Yet, the policy work was managed out of the NCU. Likewise, the strange situation that no one could provide the TE Team with the majority of the DLUPs and VLUPs prepared by the project, other than a set prepared early in the project (perhaps by the initial consultants), reflects the inappropriateness of the NCU for management of this work. For these DLUPs and VLUPs, the NCU is said to have worked with some of the same IPs that the PCU's were working with for on-the-ground implementation of SLM.

IP Implementation and Responsible persons in the IPs – NPD and PPDs: The IPs' involvement in implementation was mainly carried out through the NPD at the federal level and the PPDs at the provincial level. For stakeholder consultations, the TE Team was able to speak with the NPD, one of the PPDs, and a person who had previously served as an additional PPD. The impression is that the IPs are

[6] The basis of this result is shown in Exhibit 22 of Section 9.3. Staffing expenditures from GEF funds are estimated by the project team to be USD1,053,739. This amount makes a total of 33.3% of total GEF expenditures estimated by the project team and a total of 28.1 % of confirmed expenditures of GEF funds as of Dec. 31, 2020

[7] At the same time, it should be noted that much of the co-financing (which came to 0.89 times GEF financing in total) was direct co-financing managed by the project team. While there were also staff supported by co-financing, a greater part of the staffing budget was supported by the GEF portion of funds. Thus, an assessment of total staff costs against both GEF funds and co-financing would yield a somewhat lower (but still too high) proportion of total costs used for staffing.

quite busy; and, while they get involved in major decisions and supporting efforts where they are needed (such as regularization of the DCCs or continuation of the government portion of the project), day to day implementation was left largely to the project team. Had there been greater involvement of the IPs, perhaps the policy work would have been more successful.

An important implementation challenge the project faced is that the NDP and PPDs would often change, requiring a new person to come up to speed on the project and presenting a challenge in getting needed signatures if there was an interim period before a new person took up a position. UNDP should consider if it can work to ensure that NPDs and PPDs of its projects are technical persons who stay with the government partner long-term, rather than civil service track people who are often transferred between government departments and ministries. Punjab, in this regard, is an interesting case study. While there may be other contributing factors to it being the top performing province of the four, Punjab had as its initial additional PPD just such a person who had been with the PP&DD for a long time. He later became the additional PPC of the project when Punjab decided not to hire another PPC, so that in one way or the other, this high level PP&DD person was with the project for its full five-plus years, supporting it to achieve a very high level of delivery.

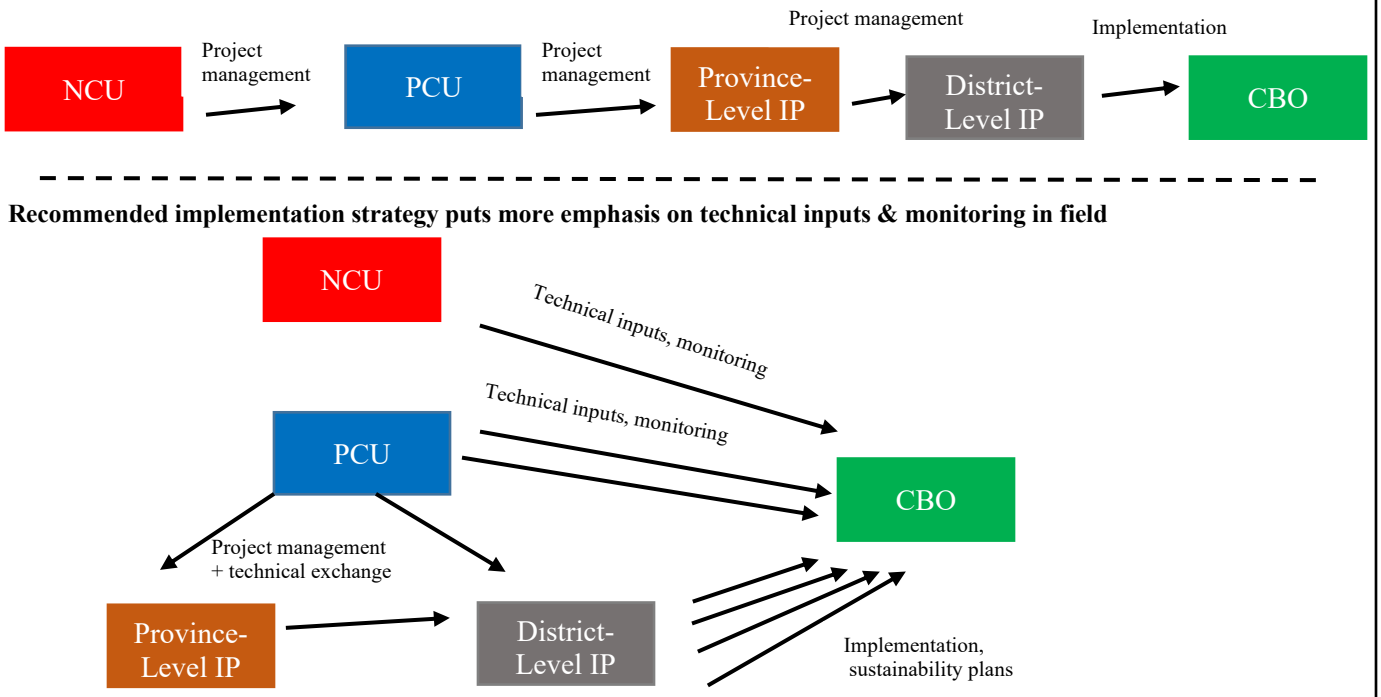
Hiring: While weakness of the project in delivering well may well be related to the institutional structure of the project team, with six GEF-funded persons at the federal level and only one in each province, another issue may have been qualifications of some staff. As noted elsewhere in this document, the project would have benefited from stronger SLM expertise. This might have ensured, for example: the quality of measures, a proper accounting of land area benefits, that water table recharging activities were not ignored in some places, and that multiple measures were carried out per village. While we were not able to get down to the bottom of the hiring situation, some findings give us the impression initial hiring was contentious and persons hired may not have had the right background in all cases. Persons put in roles requiring technical backgrounds may not really have had SLM type backgrounds at all. We asked UNDP for the notes of the hiring panel; and they asked us to check with MoCC and indicated they do not have much influence in the hiring process. We checked with MoCC; and they told us that UNDP would have those notes, as they organized the hiring process. Whatever the case, we think it's imperative going forward that UNDP play a strong role in ensuring quality of the hiring process. If the NIM agreement with Pakistan does not allow this, it may be important enough an issue to revisit the relevant portion of that agreement.[8] A further point is that the PP&DDs should have been given a stronger role in the hiring process for the PPCs. Although they were a part of the hiring panel, they may not have had as much influence on the final decision as central level panel members. A result is that in some cases, the PP&DDs were not on board with the person hired. A related point is that, in some provinces, the project had trouble mobilizing funds and getting on-the-ground measures implemented in the quantity desired. More than one stakeholder suggested to us that, to be successful, PPCs needed to not only have the required technical expertise, but also to know how to work with government to mobilize funds and approvals.

Implementation strategy: As noted above, the project might have done well with so many staff to get them more involved in actual implementation instead of project management mostly. And, at the same time, the project could have considered using consultants to fill key gaps in staffing. For example, when the project decided not to hire a new policy officer after the original one left, they might have hired a

[8] We understand that, per current NIM guidelines, the IP applies government rules for recruitment and contract management of project staff, unless the IP requests support services from UNDP through a Letter of Services (LoS) or Letter of Agreement (LoA). What is being recommended here would be different from the LoS or LoA option. It would represent a fundamental change in the NIM agreement, whereby UNDP is better able to carry out its QA role by ensuring quality recruitment. We realize that this would not be an easy change for UNDP to make and would need involvement of the UNDP team at a high level. Yet, given that staffing is so critical to the success of projects, this seems a priority to be considered.

short-term consultant to pick up the policy work, getting the ISLMPPs revised and promoting them to the provinces for adoption.

Exhibit 18. Current implementation strategy is layered and does not get enough technical expertise to the field.



A key issue we noted with regard to the project was "too many middle men" and not enough people in the field ensuring quality. Basically, the team in the NCU would communicate with staff in the PCU and then the PCU staff would communicate with the provincial IPs, who would allocate work to the district level IPs, who would get the work done in the field. More ideally, persons with technical expertise from both the NCU and PCU should have been out in the field more, influencing how the measures were selected and implemented and ensuring rational beneficiary selection and sustainability of measures. Exhibit 18 shows our impression of currunt implementation strategy and what we think would be a better approach.

Project governance – Project Steering Committee: The TE Team reviewed minutes from the project's seven project steering committee meetings: Sept. 2015, Nov. 2015 (held jointly with two other projects), July 2016 (held jointly with two other projects), Jan. 2017 (held jointly with two other projects), Dec. 2017, Dec. 2018, and Dec. 2019. Typically, the PSC meetings occur at least once a year to discuss progress of the preceding year and the annual work plan for the forthcoming year. The PSC meeting notes imply that these meetings were quite short and the level of substantive discussion is very low. The main substantive items we found are that, in one meeting, KP raised a desire to add two districts and that, in another meeting, it was raised that allowed project rates for SLM interventions was too low. No subsequent meetings referred to addressing these issues. A more dynamic PSC could have been leveraged to push for the enabling environment (i.e. SLM policies and DCCs). Perhaps the project would have gotten stronger PSC support had the main PSC been led by provincial authorities and held in the provinces on a rotating basis.

Institutional/ Management Arrangements/ Implementation Strategy Recommendations: Based on the findings presented in this sub-section, we recommend: 1. For SLM work in the future, the idea of MoCC cooperating with the federal-level Planning Commission and thus having vertical links with

PP&DDs should be explored. Further, the PP&DDs should ensure their team members with agricultural, soil and water conservation, rangeland, and forestry expertise are involved. 2. UNDP for its future projects should aim to adjust its policy such that long-term technical people in ministries and provincial departments will be NPDs and PPDs, respectively, thus ensuring both long-term continuity with the entity and technical expertise brought to bear. 3. UNDP, for future projects with mainly provincial targets, should have minimal or no staffing at the center and instead allocate sufficient staffing resources to the provinces. If there are staff at the center, they may be technical experts who can share their technical expertise with the provinces. At the same time, such a person could sit within one of the provinces and be "first among equals," providing technical support to all provinces. 4. UNDP should, in general, for future projects, ensure there is not overstaffing. A high share of the budget should only be allocated to staffing if the staff are going to take on roles that consultants and subcontractors typically do. 5. UNDP should urgently move to develop a new strategy for recruiting staff to projects that both have the necessary expertise and a track record of proactive delivery of results. UNDP should aim to develop a system where qualified candidates are contacted in advance and encouraged to apply to positions. UNDP should also ensure that it has power in the decision-making process to ensure quality team members are selected. This is critical and if the current NIM agreement does not allow it, then that agreement should be revisited. For projects with provincial staff, it should be ensured that provincial IPs have a strong say in decision making and are on board with selected persons that will be based in their province. For projects that require close cooperation for government, candidates should not only have the right technical skills but also a track record of or at least high potential for cooperating well with government. 6. UNDP should ensure that for future projects like this one, implementation strategy should call for project team members to provide technical expertise and conduct frequent monitoring of field work. A "multiple layers of project management" structure, as illustrated in the top part of Exhibit 18 should be avoided.

Note: Findings on additional topics related to project implementation are provided in Annex 3 (Section A3.3).

9.2 Adaptive Management

We find that the project was mainly focused on hitting various delivery targets rather than adaptive management that would have enabled it to achieve the more challenging strategic results framework targets. Further, adaptive management was needed in the field to address quality and sustainability issues (such as when it was realized one of the main non-orchard trees being planted for SLMP II is eucalyptus, which is a high water consuming species). Yet, the focus in the field instead was mainly on delivery towards simple targets (e.g. hectares planted, number of ponds, etc.).

As for course correction based on MTR recommendations, our impression upon review of the recommendations and actions said to be taken is that the real intent of the recommendations was for the most part not acted upon. Sometimes the planned actions and often the updates on progress in achieving them don't really address the core of what the mid-term reviewers were recommending. And, often, the update on progress is essentially that "it's too late now, maybe in the next project."

As an example of the futility of the process: The first recommendation is: "Re-focus on provisions of provincial Integrated Land Use Policies and utilize unique opportunity to mainstream SLM into provincial sectoral policies." Our understanding is that the MTR Team meant by the recommendation that (a) instead of the ISLMPPs the project should go back to the plan to prepare or at least integrate aspects of Provincial Integrated Land Use Policies. It further meant that, in addition, (b) the project should address one of its original targets - the integrating of SLM into provincial sectoral policies – that had never been done. The management response of 12/27/2018 includes as its first planned action: "NCU to engage Policy, and Land Use and Implementation Experts to revise the provincial sectoral policies accordingly

for approval by the Provincial Governments." The action item is marked as completed with comment: "Policy, and Land Use and Implementation Experts to revise the provincial sectoral policies have been engaged by the NCU." In our evaluation we never heard about these experts and never saw the revised provincial sectoral policies to incorporate SLM. As this is one of the key targets in the project results framework, we would have expected to hear about it during our consultations. And, it seems that point (a) about refocusing on land use policies is lost.

A second action to address the recommendation is "NCU to launch robust advocacy campaigns to get ISLM policies approved and implemented." And it is indicated to have been completed as well with the comment: "NCU has launch[ed] robust advocacy campaigns to get ISLM policies approved." Unfortunately, we found no evidence of such a campaign and indeed the provinces confirmed that not much had been done about these policies since the initial consultant moved out of the country in 2018.

Recommendations: 1. UNDP should ensure that newly in-place project teams understand that they need to "think with the end in mind," focusing on key targeted results rather than on ticking off activities. UNDP should make sure the new teams understand the real goal of UNDP-GEF projects is to create sustainable change that is measured by the project strategic indicator targets and that this is the far more important metric their work will be measured by than various activities that can be changed as needed with adaptive management to ensure strategic targets are met. 2. UNDP should ensure that management responses to MTRs are taken seriously, that action plans really address the recommendations, and, most importantly, that action-completed claims are indeed true, so that the whole process is not just a game in wordsmithing. It would be better that UNDP accept fewer of the recommendations and really respond to them than to have a detailed action plan "completed," but with no real change created.

9.3 Finance: Expenditure Analysis/ Efficiency and Co-financing

This subsection presents findings on expenditures of GEF funds and on project co-financing, with a key aim being to assess cost effectiveness, or "efficiency," of spending. First we show the expenditures of GEF and UNDP funds by year and outcome. Next we present rough findings on spending of GEF funds by major activity area. Then we present provincial expenditure information. Lastly, we present findings on co-financing. By looking at expenditures in these different ways, we are able to draw some conclusions about cost effectiveness. We note that funds in some cases are not concentrated on the activities that are needed to achieve critical results. We also note that a large proportion of GEF funds (29-33%) are spent on project staffing, even though most project activities are outsourced. Finally, the project has a notable achievement of leveraging "real" project co-financing from the provinces and federal government that goes directly to project activities, thus increasing the "efficiency" of use of GEF funds. Yet, total estimated co-financing is just about 20.3% of that targeted and 0.89 times GEF funding.

Annual and outcome-wise expenditures of GEF and UNDP funds – official data: Exhibit 19 shows GEF expenditures by year and by outcome/ project management as of Dec. 24, 2020. Exhibit 20 compares total expenditures by outcome/ project management to ProDoc targeted amounts (and uses end of project data – up to Dec. 31, 2020). The data in Exhibit 19 shows a slow ramp-up of expenditures in 2015 and peak spending reached in 2017 and 2018. Expenditures allocated to project management, at 3.9% of total expenditures, is well within GEF's 5% limit for this size of project, though project team salaries were largely charged to other outcomes, as will be shown in the activity-wise expenditure analysis.

The data in Exhibit 20 is a bit curious in light of achievements. Our findings on results show that Outcome 1 did not perform that well on its two major targets of policy adoption/ implementation and establishment of a lasting institutional structure. Yet, its already substantial allocation (vis-a-vis a policy/institutional/ capacity outcome) of USD 669,994 was increased by 103% to about USD 1.36

million with the addition of USD693,835. This is mainly taken from the critical on-the-ground measure outcome, Outcome 3, which is the highest performing outcome and the kind of outcome we typically expect to have a much larger allocation than the pure TA outcomes. The rough, unofficial activity-wise expenditure analysis discussed later (and based on tables in Annex 4) suggests this may be largely due to a large portion of salaries being taken out of Outcome 1.

Exhibit 19. GEF Expenditures by Year and Outcome (in USD) as of Dec. 24, 2020* (Official Data)

Item	2015	2016	2017	2018	2019	2020 (to Dec. 24)	Total
Gain/ Loss	(72.56)	(355.05)	2,752.63	19,594.99	10,511.98	(5,486.91)	**26,945.08**
Outcome 1	21,890.90	178,837.18	297,275.14	230,357.69	253,928.82	267,691.91	**1,249,981.64**
Outcome 2	0.0	133,011.71	117,355.92	87,563.25	72,680.56	31,842.46	**442,453.90**
Outcome 3	7,544.11	256,463.07	420,343.21	499,819.41	257,543.33	287,293.96	**1,729,007.09**
Project Mngt	45,991.83	18,314.56	21,714.03	34,291.13	25,783.23	(4,701.58)	**141,393.20**
Total	**75,354.28**	**586,271.47**	**859,440.93**	**871,626.47**	**620,447.92**	**576,639.84**	**3,589,780.91**

Source: Based on UNDP CDR data as provided to TE Team by UNDP Bangkok Regional Hub (BRH)
*Note: The figures in this table are all as of Dec. 24, 2020. As of Dec. 31, 2020, project close date, total 2020 spending of GEF funds was USD717,011 and thus total spending of GEF funds for all years reached USD3,730,152, which is 98.4% of the total GEF commitment.

Exhibit 20. Total Realized Expenditures by Outcome Compared to ProDoc Allocations (Official Data in USD and %, Expenditures as of Dec. 31, 2020)

Item	Total Spent to EOP (Dec. 31, 2020)	ProDoc Allocation	% of Amount Allocated to Outcome in ProDoc	Gap: (Realized - ProDoc Allocation)	% under or over ProDoc allocation
Outcome 1	1,363,829	669,994	204%	+693,835	103% over
Outcome 2	456,857	499,330	91%	-42,473	9% under
Outcome 3	1,778,524	2,307,968	77%	-529,444	23% under
Project Mngt	146,273	313,708	47%	-167,435	53% under
Total	**3,745,483**	**3,791,000**	**99%**	**-45,517**	**1% under**

Source: Based on UNDP CDR data as provided to TE Team by UNDP CO (expenditure data) and as per signed ProDoc (original allocations).

Exhibit 21 shows UNDP co-financing expenditures by year and by outcome. It shows that the majority of co-financing was spent on project management. Sources indicate all of these resources, totaling USD433,772, were spent by UNDP on UNDP staff, etc., and that none was channeled through the project as originally envisioned. For example, each of the provinces had expected part of their allocation to come from UNDP but none of this was realized in the end. According to the CER, UNDP was to receive USD379,100 in agency fee from GEF for its role as GEF IA in the project. We assume, then, that these UNDP co-financing funds were, in addition to the IA fee, spent on items related to UNDP's IA role for the project. Sources suggest that UNDP had a reduction in TRAC funding a few years into the project, which explains why the committed co-financing total of USD1.5 million was not met. Yet, it does not explain while none of the UNDP co-financing went directly to the project.

It should be pointed out that UNDP provided direct in-kind support to the project, by loaning it six SUVs and one motorcycle for the duration of the project. These were said to be high quality vehicles and will be returned to UNDP at the end of the project. Two SUVs and the one motorcycle were used by the NCU; and one SUV went to each of the four provinces.

Exhibit 21. UNDP Co-Financing by Year and by Outcome (in USD) up to EOP (Dec. 31, 2020) (Official Data)

Item	2015	2016	2017	2018	2019	2020	Total
Outcome 3	0.0	0.0	0.0	9,967	0.0	8,886	**18,853**
Project Mngt	98,642	140,200	59,362	38,370	52,539	25,806	**414,919**
Total	**98,642**	**140,200**	**59,362**	**48,337**	**52,539**	**34,692**	**433,772**
UNDP committed co-financing: USD1.5 M				% of UNDP committed co-financing realized: 28.9%			
Loan of assets to the project by UNDP: 6 SUVs and 1 motorcycle							

Source: Based on UNDP CDR data as provided to TE Team by UNDP Bangkok Regional Hub (BRH), with update to Dec. 31, 2020 by UNDP CO.

Efficiency analysis via expenditure analysis by major activity – GEF funds only – rough unofficial data provided by project team: Here we discuss a cost effectiveness ("efficiency") analysis supported by tables provided in Annex 4, namely, Exhibits A4-1, A4-2, A4-3 and A4-4. These tables show rough, unofficial data provided by the project team on expenditures of each outcome and of project management, respectively, broken down by major activity or other expenditure area. Our aim in presenting expenditures in this way is to offer insights into where the funds were really going and assess whether the allocation was strategic and cost effective ("efficient") or not. This type of high-level view of how much funding is going to each main activity area and to staffing cannot be obtained from the CDRs and would also be quite difficult to determine from other official budgetary and expenditure documents. Yet, we feel such a breakdown could be extremely useful to management in guiding UNDP-GEF projects strategically in the future and are recommending such a format that could be officially generated be considered for future projects. In this case, the TE Team provided a template to the NCU, which then provided the requested breakdowns. In some, but not all, cases, the expenditures on ICs and sub-contractors were backed up by provision to the TE Team of scans of the actual contracts. We have indicated in these tables whether the funds/relevant contracts were managed by the NCU or the PCUs when this information is available to us.

Outcome 1 rough, unofficial estimated GEF expenditures are given in Exhibit A4-1 (of Annex 4). We have organized the expenditures topically into policy work, institutional work, information/ knowledge building documents, training and awareness and capacity building, and project staffing. With almost USD600,000 in expenditures, project staffing is the greatest expenditure area for this outcome. The second greatest expenditure area, at an estimated USD506,500, is training and capacity and awareness building. An interesting point is that the two work areas that are the most directly related to the project indicator targets for this outcome received the smallest budget: There were no specific expenditures under "institutional work;" and the direct expenditures for policy were only USD51,367. On the one hand, policy and institutional work can be low cost - high return activities if done well. Yet, we believe if the funds in this outcome had been spent more strategically on the policy and institutional areas, the progress towards key targets would have been higher. Of course, some staff time was spent on those areas and is not reflected in their aforementioned subtotals.

Recommendation: To increase cost-effectiveness ("efficiency") in future projects, assess "where the money is going" as compared to the overall aims and main targets of each outcome. Looking at Outcome 1, we see that the two areas most critical to the establishment of an enabling environment (policy and institutional establishment) received a relatively small portion of total funding.

Outcome 2 rough, unofficial estimated GEF expenditures are given in Exhibit A4-2 (of Annex 4). Interestingly, staff salaries again make up the largest sub-total at USD129,119, though land use plans are close behind at USD119,447. As discussed, only a TOR was prepared for the DSS, though it was one of the two main targets of the outcome. The TE Team found some confusion as to who was managing the DLUP and the VLUP preparation. When we were looking to get copies of the additional 5 DLUPs and the additional 40 or more VLUPs we had not received, provincial sources indicated it was the NCU that managed these, though NCU sources indicated it was the provinces that managed them.

Outcome 3 rough, unofficial, estimated GEF expenditures are given in Exhibit A4-3 (of Annex 4). These are comprised of on-the-ground implementation of SLM measures (USD 871,262 sub-total) and staff salaries (USD 242,932 subtotal). There is a significant gap of over USD 615,813 between the CDR actual expenditures and these rough estimates, showing that we are missing significant information on spending in the rough activity-wise unofficial estimates under this outcome.

Exhibit A4-4 (of Annex 4) shows rough unofficial estimates of project management expenditures. Interestingly, this is the only one of this set of four tables for which the estimated expenditures exceed the actual CDR expenditures. As GEF requires that, for this sized project, no more than 5% of GEF funds are spent on project management, this table suggests project management, at about 14.4% of GEF expenditures, far surpasses the limit. As noted, however, the CDR reported project management costs are within the required range. And, perhaps the travel expenses, if focused on technical support in the field, could have been allocated to Outcome 3. Further, the differences in the CDR allocation of realized expenses to project management and this rough unofficial version's allocation may simply reflect different decisions as to what to count as "project management." Yet, this situation of estimated project management costs surpassing the GEF limit is a reflection of a bigger problem with the project that comes through in the rough, unofficial outcome expense groupings – very high staffing costs. The majority of staffing is charged to the outcomes. This can be reasonable if staff are carrying out the actual content of activities rather than just managing the contracts. Yet, aside from strong field involvement of some (but not all) of the PCUs, we found that the vast majority of activities were outsourced and not carried out by the project team. As shown in Exhibit 22, which totals the estimated staffing costs across these four tables, total estimated staffing costs of the project are USD1,053,739, which is 33.3% (fully one-third) of total estimated GEF spending or 28.1% of total GEF funds actually spent. This is extremely high and suggests lack of cost effectiveness ("efficiency"). At the same time, considering that the project was expected to leverage USD 15 M in government co-financing, the rationale for a heavy spend on staffing with GEF funds (assuming there would not be the same heavy spend on staffing from government funds) in design may have be more justified. Yet, in implementation, government co-financing ended up being around USD 2.4 M, so that staffing costs are still quite high. Lastly, some stakeholders point out that UNDP funds were expected to be used largely for project staffing, but did not materialize to be used for this purpose.

Recommendation: For future projects, strong attention should be paid to staffing costs. An effort should be made either to avoid very high shares of staffing in total GEF/ donor expenditures or to ensure that the project staff have true outcome-wise achievement functions rather than pure project management functions. That is, instead of hiring consultants and sub-contracting organizations, projects with high staff to total project spending ratios should have their staff implement specific project activities rather than pay outside parties to do so.

Exhibit 23 sums the gaps between the actual GEF expenditures (Exhibit 19) and the rough unofficial estimated expenditures in the set of four activity-wise/ area-wise tables (in Annex 4) to give a feel for how closely these tables reflect total spending. The sum of the gaps shows that actual GEF expenditures exceed these estimates by USD424,909, or about 12% of total GEF expenditures. This is much higher than we'd like and shows there is substantial missing information. Yet, we still feel the rough, unofficial activity-wise estimates are useful for getting a view of where the money has gone for insights into cost effectiveness ("efficiency").

Exhibit 22. Rough, Unofficial Total Estimated Spending of GEF Funds on Staff, based on Annex 4's four tables (in USD) up to 12/24/ 2020

The staffing cost estimates by outcome are rough, unofficial estimates provided by the NCU.

estimated staffing costs (GEF funds) reported under Outcome 1	estimated staffing costs (GEF funds) reported under Outcome 2	estimated staffing costs (GEF funds) reported under Outcome 3	estimated staffing costs (GEF funds) reported under project management	Total estimated staffing costs (charged to GEF funds)
593,426‡	129,119	242,932	88,262	**1,053,739**
% of total estimated GEF spending in the four Annex 4 tables that are attributed to salaries = 1,053,739/3,168,167 = **33.3%** Estimated salaries above as % of actual total GEF funds spent as of Dec. 31 2020 = 1,053,739/ 3,745,483 = **28.1%**				

‡This includes the NCU provided estimate of USD368,426 for salaries through end of November 2020 and its estimate of USD225,000 spent on staff supplements/ payments for ending employment at the end of the project (up to Dec. 31, 2020).

Exhibit 23. Total Gap between Actual GEF Expenditures and Rough, Unofficial Estimated Activity-Wise Expenditures in the Four Tables of Annex 4 (in USD), up to 12/24/ 2020

Outcome 1 Gap (Actual – Estimated)	Outcome 2 Gap (Actual – Estimated)	Outcome 3 Gap (Actual – Estimated)	Project Management Gap (Actual – Estimated)	Total Gap (Actual – Estimated)
+40,321	+146,009	+614,813	-376,234	**+424,909**
Actual GEF expenditures up to Dec. 24, 2020: 3,589,781 **Share of actual GEF expenditures not accounted for in activity-wise estimates:** 12.0%				

Audit, financial reporting, and issue of activity-wise expenditures: The TE Team reviewed the project's annual financial audit reports for 2017, 2018, and 2019. We noticed that the 2017 audit report commented that it would be much better if the project could report activity-wise expenditures so that these could be compared to the AWPs. We fully concur with this view. Yet, it was explained to us that there was some confusion as the auditor did not realize that there is activity-wise reporting in the UNDP FACE forms (Financial Accounting Certification of Expenses). We reviewed the FACE forms and found that they are somewhat helpful. Still, we think something more high-level, as we have prepared in Annex 4, that also clearly takes the salaries out of the activities, would be a useful tool for UNDP projects to prepare so that UNDP management can get a quick picture of where the money is going for this project. As the TE Team, we reviewed the different official materials provided, but it was very difficult for us to figure out how much was going towards salaries until we requested the type of breakdowns above.

Recommendation: UNDP should consider requiring all projects to periodically prepare high level activity-wise expenditures that show how much is spent on each major activity area and that separate out project team salaries. The purpose of these would be to give management a high level view of where the money is going, so that they can ensure the project is strategically spending funds. This is important to UNDP's quality assurance role. Financial audits only identify problems of clear misuse of funds, such as payments that are not contracted. They cannot, however, determine whether the contracts made sense in the first place, which can result from either poor strategy, or worse, procurement compliance issues.

For that, quality assurance by someone who understands the content of the project is required and better tools for viewing the main areas to which the funds are flowing are needed.

Province-wise expenditures: As a different way to assess expenditures, the TE Team requested expenditure information from the provinces. Exhibit 24 shows realized expenditures as reported by each province, broken down by funding source and compared to PC-1 committed amounts. It can be seen that, while Punjab realized most of the PC-1 committed provincial funding, KP realized only 45.7%, Balochistan only 12.5%, and Sindh 0%. Total spending for Punjab (from all sources) at PKR253.7 M was almost double that of KP at PKR130.4 M. Total spending for Balochistan was PKR77.19 M. Spending data for Sindh was not provided. It should be noted that provincial amounts committed in the PC-1 were just roughly half of those committed in the CER.

Exhibit 24. Provincial Expenditures as Compared to PC-1 Committed Amounts in PKR (with USD provided for GEF and UNDP amounts when available) Data is up until Nov. 30, 2020

Funding Source	Punjab		KP		Balochistan		Sindh	
	Actual	**Committed**	**Actual**	**Committed**	**Actual**	**Committed**	**Actual**	**Committed**
GEF	57.456 M (USD489,678)	58.43 M	51.749 M (USD406,793)	67.472 M (USD642,594)	46.740 M (USD533,248)	81.309 M (USD750,498)	NA	87.326 M
UNDP	0.0	31.45 M	0.0	31.472 M (USD299,734)	0.0	22.862 M (USD211,020)	0.0	19.996 M
Provincial	185.202 M	191.214 M	64.777 M	141.810 M	25	200 M	0.0	200.4 M
Federal	11.020 M	11.020 M	13.885 M	20.786 M	5.45	20.825 M	0.0	12.939 M
Total	**253.678 M**	**292.11 M**	**130.411 M**	**261.540 M**	**77.19 M**	**324.997 M**	**NA**	**320.661 M**
% provincial funds realized	Punjab: 96.9%		KP: 45.7%		Balochistan: 12.5%		Sindh: 0%	
Total provincial funds spent: 274.979 M; **Total provincial funds committed:** 733.424 M; **% provincial fund realized overall:** 37.5%								
% GEF funds realized	Punjab: 98.3%		KP: 76.7%		Balochistan: 57.5%		Sindh: NA	
Total GEF Funds Spent by Provinces: [155.945M (USD1,429,719) + Sindh portion (unknown)]; **Total GEF Funds Committed to Provinces:** 294.537 M; **% GEF funds realized overall in 3 provinces (as Sindh info not available) as compared to committed to those 3 provinces:** 75.3%								

Exhibits 25 and 26 show the breakdown provided by Punjab and KP, respectively, regarding use of GEF funds for on-the-ground measures versus other aspects of the project. The Punjab case in Exhibit 25 shows 61.1% of GEF funds going towards on-the-ground measures and 12.2% going towards staffing. The 61.1% is higher than our rough estimate of 50% of funds overall going to on-the-ground measures, but our estimate is for the cost of the measures themselves and does not include IP travel and per diem costs, nor monitoring field visits. Punjab's share of GEF funds going to staffing at 12.2% is much lower than the average we got for the project overall as above (28-33%). This may reflect the fact that the Punjab PPC position was vacant for a substantial portion of the project's lifetime.

Exhibit 25. Breakdown of Spending of GEF Funds in Punjab (as of Nov. 30, 2020) in USD

Area of Expenditure	Amount of GEF Funds Spent in USD	Proportion of Total
Outcome 1 ("Enabling Environment")	54,630	11.1%
Outcome 2 (Land Use Plans and DSS)	7,405	1.5%
Outcome 3 (On-the-Ground Measures)	299,438	61.1%
Operational - staffing†	59,594	12.2%
Operational – assets/ capital cost†	6,635	1.4%
Operational – operational cost†	61,977	12.7%
Total	**489,679**	**100%**

†A total of USD128,205 was reported by the PCU for operational costs, though the breakdown between these three areas was provided only in PKR. Thus, the USD breakdown among these three areas is estimated by the ratio of the PKR breakdown among them.

The KP breakdowns in Exhibit 26 show that roughly 63% of total GEF expenditures went to on-the-ground measures and roughly 25% went to staffing. The 63% figure is somewhat higher than our rough estimate of 50% of spending overall going to on-the-ground measures. Yet, this makes sense, as our estimate was only for the portion going directly to the cost of the on-the-ground measures and did not include travel or per diems for the IPs. Interestingly, the staffing cost at around 25% of GEF funds spent is similar, though a bit lower than our estimate of 28-33% overall for the project as discussed above.

Exhibit 26. Breakdown of Spending of GEF Funds in KP (as of Nov. 30, 2020) in USD

Area of Expenditure	Amount of GEF Funds Spent in USD	Proportion of Total
1. Outcome 1 ("Enabling Environment at Provincial Level"): SLM networking seminars, capacity building trainings at grass roots level, capacity building of other stakeholders, travel, student engagement for research work, etc.	31,748	7.8%
2. Outcome 2 ("Land Use Planning and DSS"): Maintenance of generators, vehicles, etc.	17,259	4.2%
3. Outcome 3 ("On-the-ground SLM Measures"): We assume this is comprised of payments to IPs and PCU monitoring visits to the field	254,427	63%
4. Staffing: Provincial SLM Technical Specialist (PPC)	99,724	24.5%
5. Operational costs: Other staff pay and allowances	3,634	0.9%
Total	**406, 793**	**100%**

Co-financing: Exhibits 27a and 27b present co-financing findings. As noted, "real" government co-financing is one of the great strengths of SLMP II. For many other projects we've seen, government expenditures reported as co-financing are only roughly related to the relevant project. In comparison, in the case of SLMP II, provincial and federal funds were dedicated specifically to project activities and particularly to on-the-ground SLM measures. As discussed and can be seen from Exhibit 24 above, realized as compared to committed co-financing for provincial funds

ranged from 96.9% for Punjab to 0% for Sindh, when considering PC-1 committed amounts. As noted, however, that PC-1 committed amounts for provincial funds were, in total, just about half of the committed amount in the ProDoc/ CER (given only in aggregate at USD14 million), so that, overall, realized amounts of provincial co-financing were around 15.5% of committed. The total realized provincial funds were PKR155.945 M and total realized federal funds (as utilized in the provinces) was PKR30.355 M. Federal realized co-financing was about 24.0% of the ProDoc/CER committed amount, though the NCU did not provide requested information on federal co-financing used a the federal level. UNDP co-financing at USD433,772 was not spent directly on project measures, but instead was spent on UNDP expenses, such as staff salaries, but also field trips for assessment of results in the field. The amount reported was 28.9% of the committed amount. Exhibits 27a and 27b summarize co-financing results, showing committed and realized amounts. It includes CBO co-financing reported and committed in the PC-1, though none was committed in the ProDoc/ CER. Overall, total co-financing (including the CBO amount, which is believed to be largely in-kind) was USD3,375,944, which is about 20.3% the targeted amount and which is just 0.89 times the GEF provided funds. It should be noted that total co-financing could be a bit higher than our estimate for the following reasons: (1) Only two provinces reported actual CBO co-financing. (2) The NCU did not report any co-financing spent at the federal level. (3) While we have tried to use an intermediary exchange rate, it may underestimate USD spending if the reality should have called for a somewhat higher weighted average exchange rate for PKR.

Exhibits 27a and 27b. SLMP II Project Co-Financing Planned and Committed

Note: Committed provincial co-financing amounts in ProDoc/ CER are different than those in the PC-1, with the PC-1 amounts for the provinces being only around half of ProDoc commitments and being made in PKR. Because the PC-1 committed amounts are the ones the provinces are operating by and are broken down by province, we believe it is important to show the PC-1 amounts and progress towards them. We do this in Exhibit 27a below (in PKR). Then, the traditional USD table with committed amounts based on the CER is provided as Exhibit 27b. CBO co-financing commitments were not included in the CER, but are included in the PC-1 and have been reported by some provinces. We thus include their break down in PKR in Exhibit 27a as well, with total realized included in Exhibit 27b.

Exhibit 27a. Provincial Co-Financing Commitments in the PC-1 and Realized Amounts in PKR (both government and CBO)

Co-financer	Co-Financing Amount	
	Planned	Actual
I. Cash grant or investment	---	---
Punjab Provincial Government per PC-1 (spent directly on project)	PKR191.214 M	PKR185.202 M
KP Provincial Government per PC-1 (spent directly on project)	PKR141.810 M	PKR64.777 M
Balochistan Provincial Government per PC-1 (spent directly on project)	PKR200 M	PKR25.0 M
Sindh Provincial Government per PC-1 (spent directly on project)	PKR200.4 M	0.0
Subtotal for Provincial Governments per PC-1 in the case of committed	*PKR 733.424 M*	*PKR274.979 M*
II. Combination of in-kind and cash (with breakdown unavailable)		
Punjab CBOs per PC-1	PKR45.05M	PKR45.030 M
KP CBOs per PC-1	PKR56.027 M	NA
Balochistan CBOs per PC-1	PKR86.322 M	PKR5.65 M
Sindh CBOs per PC-1	PKR52.05 M	NA
Sub-Total CBOs (part in-kind part cash) per PC-1 in case of committed	*PKR239.449M*	*PKR50.68 M*

Exhibit 27b. Co-Financing Commitments as in the CER and Realized Amounts in USD

Co-financer	Co-Financing Amount	
	Planned	**Actual**
I. Cash grant or investment	---	---
Provincial Governments per ProDoc/CER in the case of committed	*USD14 M (PKR 1,428.6 M)**	*≈USD2.172 M† (PKR274.979)*
Federal Government per ProDoc (spent directly on project)	USD 1 M	≈USD239,800† PKR30.355 M
UNDP (spent on UNDP staffing, UNDP spot check visits, etc.)	USD1.5 M	USD433,772
Other Multi-Lateral Agencies (IFAD and GM)/ Global Mechanism (spent on updating NAP for Combatting Desertification)	USD130,000	USD130,000
Sub-Total full cash grant or investment as per ProDoc for committed	***USD16.63 M***	***USD2.975572 M***
II. Combination of in-kind and cash (with breakdown unavailable)		
Sub-Total CBOs (part in-kind part cash) per ProDoc in case of committed	***0.0***	***USD400,372†***
Grand Total	**USD16.63 M**	**USD3.375944 M (*of which 2,975,572 M is cash and 400,372 is mix of in-kind and cash*)**

*CER/ ProDoc submitted in Aug. 2013 when exchange rate was 0.0098 PKR/ USD

†A challenge is that PKR to USD exchange rate fell over the course of the project. It was 0.0094PKR/USD towards the beginning of implementation and 0.0064PKR/USD towards the end of implementation. To get a rough estimate, we use an average of the two or 0.0079PKR/USD.

9.4 Gender

The project put some effort on gender, including preparation of a gender analysis with gender strategy, after the MTR. Yet, we found that women still seemed to lag far behind men in terms of playing a role in decision-making regarding main SLM interventions. Instead, they were in a leadership role only for minor benefits tacked on to the project, namely non-SLM activities, such as kitchen gardening or poultry raising, which had a much lower investment per household than the SLM measures. The project's gender analysis report recommended a strategy with specific actions/outputs, but we found no evidence that these were followed up upon. Interestingly, the strategy emphasized Outcome 1 and policy as a key channel for mainstreaming gender. In our view, the project should also have tried harder to come up with a way of ensuring women's role in its main SLM measures (Outcome 3). At the same time, we recognize the challenges in doing so. We found that in some cases in which women were named the "owner" for SLM interventions, they may have been so in name only and were represented by their husbands or male relatives in discussions.

Exhibit 28 below shows the feedback we got from the 22 interviewed villages on women's involvement in SLMP II. If they had women members in their CBO (20% membership was a typical target) or a separate WO, they emphasized that. If there were women-specific livelihood activities, they would emphasize those. (Again, we note that the level of benefit per HH from those was much smaller than for the main SLM activities.) In some cases, training trainees were indicated to be 25% women. Yet, the proportion of women as decision-makers on major SLM interventions was very low – perhaps just 1 to 3%, as estimated by some stakeholders. And, as often as not in these cases, the woman appeared to be the decision-maker in name only. Those few cases in which women were the real decision-maker should be highlighted and studied as possible models to expand upon. Overall, involvement of women appears stronger in Punjab and Sindh and weaker in KP and Balochistan, probably due to the more traditional nature of the latter's communities. An increase in women-specific activities may be a strategy to consider, but if this approach is taken, the women-specific activities should not be the minor non-SLM ones of this project, but instead clear SLM measures with as high of budgets as the male-specific measures.

Review of the findings in Exhibit 28 suggest, by province, the following roles of women in SLMP II:

1. Balochistan: Women do not lead, but in 3 of 4 cases they are helping with cultivation or packing of products associated with the SLM measure. In one case, a woman is managing a nursery for her husband.

2. Sindh: Women have very strong representation in VOs. Vegetable gardening is a livelihood activity (rather than SLM activity) with low project investment that specifically benefits women.

3. Punjab: All nine villages indicated their CBOs had women members. Women frequently took part in training, though often this was for women-specific activities with low investment (e.g. kitchen gardening). Most significantly, as we think about how to increase women's benefits: (a) There were about 7 cases of women as owners of major SLM interventions, though in some cases it was clear this was in name only. (b) Women had a special benefit from grassland reseeding as it increased dairy production and women were said to control earnings from dairy production.

4. KP: Three of seven villages had WOs, but the four that did not and had no women members in their CBOs. There was just one case we heard in KP of a woman owning one of the main types of SLM interventions. Some villages benefited from women-specific interventions (which tended to have much lower investment than main SLM activities), namely kitchen gardening and poultry distribution. Most significantly, women were involved in large numbers in kana processing. In one case we heard only men

were trained to use the kana-related machines, but then they trained the women. Marzri is another plant like Kana that may present strong opportunity for women to be involved in processing.

Exhibit 28. Feedback from 22 Interviewed Villages on Ways in which SLMP II Promoted the Interests of Women in their Villages

Note: Instances where a woman is indicated as "owner" of a SLM measure are underlined.

Balochistan Villages (*district indicated, but not village name*)			
Qilla Saifullah #1 1. Women in family help with cutting and packing grapes indoors. Daughter helps with watering grapes as well.	**Pichin District Village #1** 1. Indirect benefit: Wife of one beneficiary manages nursery.	**Pishin District Village #2*** 1. No special activities for women, none in CBO. 2. Women participate in cultivation/ orchard activity.	**Lasbella Village #1** 1. No special activities for women.
Sindh Villages (*district indicated, but not village name*)			
Tharparkar District #1* 1. VO membership has 50:50 male to female ratio		**Tharparkar District #2*** 1. 11 of 16 VO members said to be women 2. From IP, understand vegetable garden is for women	
Punjab (*district indicated, but not village name*)			
Chakwal #1 1. Women are part of the CBO (5 members are women) and give their opinion (some were present at interview) 2. Women have been direct beneficiaries. <u>The fruit nursery was in the name of a woman, but unfortunately, she died and it is now managed by her male relative.</u> 3. Women participated in nursery and kitchen garden trainings.	**Chakwal #2** 1. Women are part of the CBO (5 members are women) 2. Out of two trainings, one (kitchen gardening) was for women.	**Chakwal #3** 1. Seven women are included in the CBO as members 2. Except kitchen gardening (and training on it), no activities for women. (some female CBO members were present in the meeting)	**Chakwal #4*** 1. Two women are part of the CBO and give their suggestions at meetings. 2. Women participated in all trainings (of 22-23 people, 2 to 3 were women) and kitchen gardening training was for women.
Khushab #1 <u>1. Two shelter belts and one nursery are owned by women</u> 2. Women are CBO members 3. Women are also engaged in forest nurseries as daily wagers. 4. How women beneficiaries were selected: In CBO meeting, women, who are CBO members, showed interest in participating. 5. 20% of trainees are women	**Khushab #1** 1. No women-related activities – no opportunity for women to participate actively – only one activity in village. 2. Women are CBO members.	**Khushab #3*** <u>1. The forest nursery is owned by a lady.</u> <u>2. One of the two shelter belts is owned by a woman.</u> 3. Women took part as laborers in the nursery (soil filling and sowing in polythene bags). 4. Women beneficiaries selected in CBO meeting. Women are CBO members 5. Four to five women out of 20-25 persons trained.	
Bhakkar #1 1. Kitchen gardening for women 2. Women included in the CBOs 3. Women involved in project activities 4. Women benefit from reduced labor in grass cutting. <u>Production of dairy products increased by 30% (due to rangeland reseeding) and hence income from sale of dairy products. Rs. 6000 to 8000 per month/ HH. All the income from sale of dairy products is controlled by women.</u>		**Bhakkar #2*** 1. No special activities for women 2. Women are included in the CBOs <u>3. A woman owns a woodlot (The owner of the woodlot was not present herself. Her husband was there. It looked like her name was used but the actual ownership, management and decision rested with her husband.)</u>	
KP (*district indicated, but not village name*)			
Lakki Marwat #1 1. CBO 15 men, 0 women 2. Women indirectly involved in management of	**Lakki Marwat #2** 1. CBO 16 men, WO 15 women 2. Women selected by CBO for distribution of improved poultry (7 HH)	**Lakki Marwat #3** 1. CBO 15 men, WO 15 women 2. Kana mechanization: Women are involved in making of Kana products (2 machines and 6 HHs	**Lakki Marwat #4*** 1. CBO 16 men 2. About 100 women are involved in Kana products preparation

plantations, Kana harvesting, and preparation of Kana production 3. No women were trained	3. Women indirectly involved in Kana harvesting and the making of Kana products. Note: Major livelihood sources were Kana cultivation, making of Kana products, and livestock. Both men and women are engaged in these activities. 4. We guess that poultry management training was for women	(20 more HHs might share harvester)). 3. One of the owners of Kamara bunds is a woman. 4. Village indicates there is need for women-specific livelihoods improvement activities. Note: Like kana there is mazri also which needs to be promoted through plantation and mechanization of products preparation.	3. No women involved in training 4. Women involved in forest nursery raising 5. Ten to fifteen women are trained in using Kana weaving machines and forest nursery raising.

DIK #1	DIK #2	DIK #3*
1. CBO: 10 men, 0 women 2. Nothing special for women/ no involvement of women	1. CBO: 10 men, 0 women 2. No involvement of women	1. CBO 13 men, WO 12 females (project established WO) 2. Poultry provided to 16 women (cost to project PKR10,000/ unit, or about USD62/ unit) 3. Women trained in fruit and vegetable processing and kitchen gardening

*Villages with asterisk (*) were selected at random. Other villages were specifically suggested by project team.

Recommendation: Future UNDP projects of this sort need to push the envelope with more creative ways to get women to be decision-makers and central beneficiaries of main SLM interventions. Women as decision-makers should not be relegated to only low-cost "side interventions," like poultry raising, that are not really specifically SLM initiatives. While the challenges are understandable, HHs are very interested in SLM activities and thus may accept certain requirements for women's involvement in decision-making that get women beyond the "owner in name only" phenomenon. That is, the SLM agreement with the HH might incorporate certain requirements, such as requiring women be at decision-making meetings and also be the ones to explain their results to monitoring personnel. True SLM-related activities, like kana processing or increased dairy production resulting from rangeland reseeding, that tend to benefit women (rather than "side interventions" like poultry raising and kitchen gardening) should receive emphasis. Lastly, the few cases in which a woman is the real decision-maker and owner of an SLM initiative should be studied as potential models to replicate.

10. Conclusions and Recommendations

10.1. Conclusions

SLMP II is a highly relevant project that has scaled up (quantity-wise) on-the-ground sustainable land management measures implemented in certain arid and semi-arid areas of Pakistan. These measures, a part of the project's Outcome 3, have proven to have significant income benefits for those that are directly involved, as well as indirect benefits for others. Efforts in Punjab and KP achieved much more significant scale-up than those in Balochistan and Sindh. Efforts in the latter two provinces, however, introduced innovative measures that in many cases resulted in very high income benefits for the few households directly involved. The project's results in developing an "enabling environment," planning and decision-making tools, and financing for SLM were much weaker. Yet, without sustainable, long-term results on the aforementioned, it is unclear whether the urgently needed cross-sector SLM-type work to address land degradation will continue at the level needed in the 80% of the nation's area that is arid or semi-arid. More specific conclusions are given below.

Relevance

- Given its pervasiveness and high level of negative impact on the populace, land degradation in drylands (arid and semi-arid areas) is of great national importance to Pakistan.

  - Over 80% of Pakistan's land area is classified as arid or semi-arid. Many of the nation's 140 M rural residents live in these areas. Land degradation from poor irrigation and drainage practices, over-collection of fuelwood, and overgrazing, along with under-supply of water resources, reduces land productivity. There is a heavy impact on household incomes; and poverty rates are high.
- The SLM approach is highly relevant and highly needed in Pakistan to address the above issues.
  - Institutionally and policy-wise, the nation is not set up to address dryland degradation issues in the integrated, multi-sector way needed.
  - Even within sectors, line departments lack expertise on measures related to dryland degradation.
    - As discovered from fieldwork, key approaches, such as drip irrigation and replacing standard plantings (e.g. apple trees) with low water consuming ones (e.g. olive trees) are completely new to some of Pakistan's driest areas, having not been introduced by relevant line departments.
  - 10 BTTP shows Pakistan is ready to launch large, national programs to deal with its most vexing issues of land degradation. Yet, programs thus far have been carried along sectoral lines only, given that the experience and framework for an inter-sectoral approach to SLM is lacking.
  - TE findings show that many SLM measures not only improve land quality, but also bring substantial and potentially long-term income benefits to directly involved beneficiaries.
- At the same time as the SLM concept is highly relevant, it is in need of further definition to ensure it is carried out effectively and is recognized for its livelihood potential. (See Recommendation 8.)

Design

- The project's overall design is well-constructed, calling for a needed multi-pronged approach to achieve long-term supportive systems for SLM, along with increased on-the-ground SLM examples.
- Some strategic indicators/ targets are problematic: Project lacks explanation of how land area targets are to be achieved. Some targets are unrealistic and some can be interpreted in multiple ways.
  - Project targets 800,000 ha of improved land area, but offers no explanation of how this (and the sub-targets for farmland, forestland, rangeland, and sand dune stabilization) was come up with.
  - Land area targets are overly ambitious, probably due to generic benchmarks for GEF projects that fail to distinguish between the much higher level of quality added per ha in a project like this as compared to a project that, say, simply institutes a protected area management plan.
- Project design fails to describe activities that will lead to achievement of the "difficult" parts of targets.
  - Design calls for policy drafting, but does not describe how target of adoption will be achieved.
  - Design calls for establishing DCCs in government, but does not describe how this will be done.
- Project might have provided more description and justification of the land use policy target and the DSS target, both of which were not carried out in the end. Also, for the land use policy, the scope might have been made narrower to focus on rural drylands only.
- Design of project team staffing was too center heavy, given that most targets are in the provinces.
- For on-the-ground measures, design might have been more strategic and preemptive of problems:
  - Specifying multiple measure be carried out in each village.
  - Considering strategy options of: (a) carrying out measures in clusters of villages rather than highly dispersed ones so as to achieve results over a contiguous landscape; (b) whether to focus on formerly productive now degraded land or long-term bare land/ desert that has not been productive for over 100 years.
  - Specifying that water table recharge and not just water conservation should be targeted.
  - Specifying that inappropriate/ un-ecological land conversion should be avoided as should plantings known to be relatively high in water consumption (e.g. eucalyptus).

Outcome 1: Policy, Institutional, and Capacity Building (Enabling Environment)

- The project has not achieved any policy adoptions, but has prepared four draft ISLMPPs.

  - The project decided not to pursue provincial land use policies as in the project design. Instead, it prepared the ISLMPPs in 2017 and 2018 with extensive consultations. Yet, in the last two years of the project, evidence suggests no substantial efforts were made towards finalization and adoption.
    - Whereas land use policies would include required compliance, ISLMPPs are like guidance documents. Yet, if implemented, they would be valuable in promoting SLM.
    - TE team observed rangelands being converted to forest with negative ecological consequences, suggesting land use policies are indeed needed.
  - The project did not pursue the target of integrating SLM into provincial sectoral policies.
  - With USD130,000 in donor co-financing, the project updated the NAP to Combat Desertification, but no evidence that this is being used was found.
- No permanent DCCs have been set up either at the federal or provincial level. If any are regularized in the end, they are unlikely to have sufficiently high status to drive major spending and initiatives.
  - At the federal level, a PC-4 has been prepared that requests establishment of the DCC. At the time of the TE, this was still with MoCC and not yet submitted to the Planning Commission.
  - In each of Punjab and KP, there is possibility a DCC would be set up within an existing PP&DD section, such as agriculture, but there are no plans to hire a high-level technical expert.
  - In Sindh, the Secretary PP&DD has sent a letter to the Chief Minister for continuation of the project for two years with the completely unspent *SLMP II* provincial budget of PKR 200 M.
  - In Balochistan, there are discussions about extending the development project (which also has substantial unspent provincial budget) for one year (June 30, 2021 to June 30, 2022).
- The project carried out substantial capacity building at various levels reaching many persons, but did not achieve institutionalization of capacity building as targeted in project design. The project also prepared a number of knowledge and information dissemination products.
  - Inter-provincial SLM network exchange visits received high marks from stakeholders.
  - While a university SLM curriculum was designed, it was not used. Part may be used in Balochistan.
  - Villager training was extensive. All but one of 16 villages visited in person reported training.
  - There was no evidence of use of project info dissemination products in any of 16 villages visited.

Outcome 2: Land Use Plans and DSS (Tools for Making Decisions on Land Use, SLM Measures)

- Findings in the field, such as conversion of rangeland to forest and widespread use of eucalyptus in degraded dryland areas, confirm the need for better land use planning.
- DLUPs are new to Pakistan. VLUPs have been done for forest villages, but are new to project areas.
- The project reports 7 DLUPs and 55 to 150 VLUPs. The TE Team asked to see all of these, but only 2 DLUPs and 16 VLUPs were provided. The NCU was in charge of this work, but lacked copies.
  - DLUPs reviewed had good background info, but need greater specificity in recommendations and a budget. VLUP quality was weaker and need a more custom approach in background info and more specificity and a budget in recommendations.
- The DLUPs have not been officially adopted or transmitted. Some DFOs find them useful as briefing materials. There was no confirmation that the DLUPs are being used for implementation of measures.
- Eight of the villages interviewed indicate a VLUP process was carried out, but none of these VLUPs are being implemented and the villages either have no copy or only part of the VLUP.
- Another village met (not interviewed) got around USD50,000 in donor funding based on its VLUP.
- A donor is interested in the VLUPs in Kech, Balochistan, for the purpose of developing projects.
- The project never commissioned preparation of a DSS, though did have a contractor prepare an RFP for one. Records show UNDP repeatedly reminded the project to do the DSS.
  - Reasons given for non-delivery are (1) lack of funds and (2) difficulty getting data.
    - Funds spent on areas not critical for achieving targeted results could have been channeled to the DSS. For example, USD125,000 of the USD225,326 spent on awareness materials (booklets, leaflets, and brochures) could have been used.

        - With its six staff in Islamabad and MoCC affiliation, the project could have put strong effort into getting the needed data.
    - The DSS was envisioned to answer planning questions, such as, "What are the best places to plant olive trees, given soil, water, and weather conditions?"

Outcome 3: On-the-Ground Measures and Financing (Scale-Up)

- Land area improved (directly and indirectly) via SLM measures and *SLMP II*-attributable replications is estimated by TE Team at 19,320 ha. Achievements in Punjab and KP were relatively higher (11,892 ha and 7,099 ha) and those in Balochistan and Sindh (182 ha and 147 ha), very low. Total area targeted by project is 800,000 ha, or, subtracting baseline values (for which justification was not provided), 469,400 ha. Punjab was the lead both in total area improved and in leveraging the full amount of provincial funds committed. KP stood out for having a greater variety of measures than Punjab, especially irrigation structures, which included some innovations, and lowest cost per ha.
    - Because PIR reporting on land area targets was found to be without basis, we developed a bottom-up, village-by-village model based on submissions by the PCUs, using TE field findings to adjust.
    - Based on back-of-the-envelope calculations, even a highly efficient project, in which all provinces utilize all PC-1 government co-financing and in which replication of three times is achieved, would at most achieve 200,000 ha of improved land area (including indirectly improved land).
    - The project lacked metrics for estimating land area indirectly improved by various measures. Some measures, such as rainwater harvesting pond, which recharges the water table over about 50 acres, benefit a large area beyond that treated. Others, such as drip irrigation, do not benefit land beyond that treated. Based on field work, the TE Team developed preliminary metrics for estimating indirectly improved land area achievements.
    - Means of increasing land areas improved in future efforts: (a) increase replication; (b) increase share of provincially spent funds going to field measures; and (c) focus on measures that provide strong "surrounding area land benefiting" results.
        - Estimated overall replication of land area improvement is just 0.50 times when limited to replication attributable to the project. *SLMP II* did not monitor replication. This estimate is based on TE Team village interviews.
        - Estimates suggest just around 50% of *SLMP II* funds spent in Punjab and KP went to on-the-ground measures (not including IP travel and per diem costs).
        - Punjab and KP implemented many measures that, in addition to area treated, improved surrounding area land, whereas Balochistan and Sindh tended to focus on water conserving irrigation projects and pumped water holding pools, which only improved the area treated.
- Strong results are that project villages numbered 193, close to the 200 mentioned in the outcome statement, and that 6.8% of HHs in project villages are benefiting directly from SLM measures.
- Weighted average increase in income for the 4,152 HHs involved in measures for which we had feedback on income improvement was Rs105,932/HH/yr. Rough estimate of income increase for these HHs is around 15%.
- Total beneficiaries, including indirect ones (those whose land was not directly improved, but benefit in other ways, such as access to water for livestock or reduced wind erosion on their land), are 13,127 HHs. Of these, 5,145 HHs are direct beneficiaries, with SLM measures carried out on their land.
- There were roughly 20 different SLM measures implemented, with varying levels of innovation: water harvesting pond (some with WCS for irrigation), WCS (without pond), inlet/outlet structures, earthen bunds, gated structures, spillways, retaining walls/ spurs, contour trenches/ spurs/ eyebrows, drip irrigation-pumped water holding pool-low delta crops orchards together as a system (including also solar pumps in Sindh), fruit orchards with piped irrigation, other water conserving low delta crops (but with no water holding pool), shelterbelts, woodlots, nurseries, kitchen gardens, dry afforestation, rangeland reseeding, rangeland improvement plans, and kana plantation.

- The vast majority of these (and vast majority of land improved) is on agricultural land (even though trees are often involved, such as in shelterbelts and woodlots).
- The most innovative, such as the drip irrigation, pumped water holding pool, and low delta crops, were the main measures carried out in Balochistan and Sindh and do not provide strong benefit to land areas beyond those treated. The less innovative, such as rainwater harvesting ponds, were used more in Punjab and KP and tended to bring strong land area improvement benefits. Some traditional irrigation measures were implemented in KP, but with innovative features (e.g. gated structures and inlet/outlet structures with new materials).
  - Innovativeness is sometimes used to assess need and whether the measures would have been achieved without the project. For those measures that were not as new, in some cases (especially tree related initiatives, such as woodlots, shelterbelts, and dry afforestation), it appeared others, especially 10 BTTP were supporting similar initiatives in the area, raising the question of whether GEF "incremental" SLM support was really needed.
  - While grassland reseeding was not categorized as innovative, it had not been done for a long time and was indicated by stakeholders to be sorely needed.
- The measures that achieved the greatest area of land improved, all with over 1,000 ha achieved in one province, listed from greatest to least are: rainwater harvesting ponds in Punjab, rangeland reseeding in Punjab, gated structures in KP, inlet/ outlet structures in KP, and woodlots in Punjab.
- The TE Team found that, in a number of villages, there was not much of a mix of measures. In some districts, only forestry department measures were carried out. In others, the forestry department and water resources directorate worked in different villages. This approach falls short of the integration that makes SLM high value-add. In Balochistan, where water holding ponds and drip irrigation were used to develop barren land, but no water table recharging measures were adopted to address a deep and falling water table, the lack of integration is especially problematic. (Drip irrigation combined with low water consumption crops results in water conservation and/or a greater area of land being irrigated than before, so is therefore applauded. Yet, irrigation of barren land, even with water conserving measures, should be integrated with water table replenishing measures.)

- Field work identified some challenges with quality of on-the-ground work:
  - A number of fruit and forest nurseries appear unsustainable beyond their first season of sales. Owners may need help with marketing.
  - There is lack of management plans for many of the forestry-type initiatives (woodlots, shelterbelts, and dry afforestation).
    - In most cases, proper agreements with beneficiaries were not signed. Such formal agreements would specify terms and conditions, including project payments and beneficiary contribution, as well as future management, operation, maintenance, etc.
  - For non-fruit trees, eucalyptus was one of the main species planted even though it is known to consume large amounts of water and does not fit will with a dryland SLM program's mandate.
  - In one site visit, we found woodlot trees were planted too close together, occupying only half the land area claimed; and the shelterbelt and dry afforestation (the latter which was on irrigated land and should, by definition, not have been) had both been clear cut.
    - The woodlot trees were planted with 7 ft by 7 ft spacing, rather than 10 ft by 10 ft. Standard and approved specification should be followed to avoid any confusion and misunderstanding, as well as ensure more success.
  - In some locations, single beneficiary HHs were given a large target. All of the above bullet went to a single HH; and 5 nursery units were distributed to single HHs in a number of cases.
  - In general, CBO membership seems to be comprised of a single interest group rather than a broad cross-section of villagers.
- *SLMP II* called for the development of 44 SLM funds and other support to generate financing for SLM. Village interviews indicated strong interest in replication but lack of funds as barrier. Thus, this aspect of project design was highly relevant. Yet, it was not significantly followed up upon.

- The only village funds identified as established by the project were two new ones in Sindh. These were not specific to SLM measures and were most likely to be used for seeds.

Institutional/ Management Arrangements/ Implementation Strategy

- Institutional challenges include: (a) MoCC (the federal IP) lacks vertical reporting relationships with PP&DDs (the provincial IPs). (b) The NPD and PPDs are usually from the management cadre of the Civil Service, and thus persons that frequently change jobs, lack technical expertise in the area of the project, and have only short tenures with it.
- Some suggest the proper institutional home for SLM in the provinces should be the forestry or agriculture departments, because of their technical expertise. Yet, the PP&DDs have the advantage of responsibility for cross-sectoral planning and management of funds.
- The project faced administrative challenges in that the three main sources of funds (GEF, province, federal level) had to be kept in separate accounts. This is said to be the key reason that Sindh has waited until the project is over to start releasing its funds. This problem is said to be a vestige of UNDP's PCOM system and will no longer be a problem now that NIM is adopted.
- Staffing issues: (1) 28% to 33% of GEF funds were spent on staff salaries. This may have made sense if staff were very actively involved in implementation, instead of mainly doing project management. (2) Given that most targets were in the provinces, the heavy federal level staffing (with 6 GEF paid staff) and light provincial staffing (usually with just 1 GEF paid staff) was not effective. (3) Most technical staff were mainly playing middle management roles rather than actively monitoring in the field and providing technical guidance on measure selection, sustainability issues, etc. As such, the project had many middle layers, but little technical support for on-the-ground measures.
- Hiring issues: It is not clear how hiring decisions were made. Selection committee records and resumes were not available. Some staff did not appear to have the necessary SLM technical background. Further, some stakeholders point out that, to be successful at the provincial level in mobilizing funds, PPCs also need experience or at least capabilities in working with government.
- There were 7 steering committee meetings, but these do not appear to have been very substantive. Three were held jointly with PSC meetings of other projects.
- In Punjab, SLMP II commissioned NRSP to handle mobilization of the CBOs. Taking this step in the environment of a government project is considered a bold move. The decision appears to have paid off in terms of mobilization and distribution of benefits.

Adaptive Management

- The project did not utilize adaptive management to address technical issues in the field, such as the widespread planting of eucalyptus or unachieved policy and institutional targets.
- Review of actions plan and follow up on MTR recommendations suggest that the real intent of the recommendations was for the most part not acted upon. Sometimes the recommendations seemed to be misunderstood, sometimes actions that appear not to have been taken were said to be taken, and sometimes a response such as "it's too late now, this can be done in future projects" was given.

Expenditures and Co-Financing

- By Dec. 31 2020 (project close date), the project had spent 99% of GEF funds, or 3,745,483. Total GEF fund expenditures roughly estimated to be attributed to staffing are USD1,053,739.
- It is difficult to get a clear idea "where the money is going" based on basic documents, such as the CDRs and AWPs. Thus, we requested the project team fill in special templates showing spending of GEF funds on major activity and line item areas. Yet, the info gathered in this way comes up short by USD424,000 (after estimated expenses for December 2020 were added in) compared to CDRs.
- Compared to signed ProDoc's allocation, Outcome 1's GEF funding was increased by over 100% to USD1,363,829, which is surprising given that this is the policy/ institutional/ capacity building outcome. Yet, the top category of spending for this outcome (at about USD593,400) was salaries, also

the top category for Outcome 2. The two areas included as strategic targets for Outcome 1 (policy and institutional aspects, for which targets were not achieved) are indicated to have a spend of only USD51,367.

- UNDP realized co-financing was USD433,772 compared to committed amount of USD1.5 M. These funds were not used directly for project activities or project management but instead went towards UNDP expenses. As GEF IA, UNDP receives an agency fee of USD379,100 for the project. UNDP provided direct in-kind support by loaning six SUVs and one motorcycle to the project.
- The provincial level of committed funding in the ProDoc of USD14 million seems about double what was committed in the PC-1 and used for reporting by the provinces. As compared to PC-1 provincial commitments, Punjab realized 97%, KP 46%, Balochistan 13% and Sindh 0%. Total spending for Punjab (all sources) was PKR253.7 M, for KP PKR130.4 M, for Balochistan PKR77.19 M. Spending data for Sindh was not provided. Share of GEF funds committed that were realized by Punjab, KP, and Balochistan as a group (data for Sindh being not available) was about 75%. That means nearly 25% of the original GEF allocation for these provinces was spent at the federal level. Based on breakdowns provided by the provinces, Punjab spent 61% of the GEF funds realized on on-the-ground measures (including IP transport and per diems) and KP sent 63% of GEF funds on this.
- Compared to committed amounts of co-financing in the CER (USD14M from the provinces, USD1.5 from the federal government, USD1.5M from UNDP and USD130,000 from other donors), realized amounts (very roughly calculated for provincial and federal contributions due to exchange rate issues) were USD2.17 M for the provinces, USD239,800 for federal government, USD431,507 from UNDP, and USD130,000 from other donors. Total realized co-financing is about 0.89 times GEF financing.
- Despite the level of realized government co-financing being a lot lower than targeted, a real strength of the project (and ground-breaking for projects of this generation) is that the government co-financing was directly used for project activities rather than for vaguely similar endeavors.

M&E

- Project reporting on indicators in the annual PIRs is highly unsatisfactory. Achievements in the category of land area improved were consistently reported as quite high and on track to meet targets, without real basis. July 2020 PIR reported total of 657,316 ha improved; our estimate is 19,320 ha.
  - Basic reporting of achievements in the field was done, but the problematic aspect was achieving a reasonable extrapolation beyond areas directly treated.
- The MTR provided important observations and recommendations. Yet, about these all-important land area achievements it simply said multiple times “cannot be verified.”
- Without project-wide bottom-up, village-by-village indicator reporting, the reality of project achievements remains opaque and meaningful quality assurance via spot checking is not possible.
- TE team spent a great deal of time coming up with a model to estimate achievements, far in excess of what made sense for the assignment, but there was no other way to address this key gap. M&E budget calls for third party assessment of indicators prior to the MTR and TE, but this was not done.
- Provincial monitoring work tended to focus only on checking boxes of achievements, rather than assessing quality and sustainability. And, there was no reporting of replication, which would be necessary for project to claim replication as the basis of some of its land area achievements.

Gender

- The project prepared a gender analysis, including gender strategy, after MTR, but it was not utilized.
- The project put some positive effort on gender in the field. Yet, women seemed sidelined in terms of decision-making on the major SLM measures and spending and instead were mostly relegated in decision-making to very low expenditure activities, some non-SLM, such as poultry.
- Gender results appear stronger in Punjab and Sindh, as compared to Balochistan and KP, which is to be expected due to the latter having more traditional communities.

- Women were sometimes members of CBOs (such as in Punjab) or members of a separate WO (such as in KP). When members of CBOs, a typical breakdown reported was 20% women.
- Women made up a significant share of trainees in some villages, but as owners of SLM measures, their share is estimated at only 1 to 3%. And, it was found that in some of these few cases the woman is the owner in name only, whereas the husband manages the SLM measure.
- Kana production and processing appear to create many opportunities for women in KP. Though women did not attend the kana mechanization training, the men who did later trained the women.
- Income benefits from grassland reseeding (via increased milk production) is said to be positive for women as they control revenues from milk sales.

10.2. Recommendations

Recommendations are divided into two parts. The first part is specifically for UNDP; and the second part is for GOP (federal and provincial levels) and whoever else may be involved in promoting SLM implementation in Pakistan in the future. At this point, it looks like UNDP may not be directly involved in such efforts. Yet, as findings of this TE suggest that SLM by virtue of its relevance has the potential to become a very major government program in Pakistan, but still lacks the necessary enabling environment, UNDP may wish to review this second part as well.

Part 1 – Recommendations Specifically for UNDP

Recommendation for UNDP	Parties to Act	Timeline
1. BOTTOM-UP MONITORING AND RANDOM CHECKING: For projects that target large land area or other dispersed achievements, institute bottom-up reporting requirements that facilitate true quality assurance by random checking: (i) Require project designers to include explanation of "how the math works" so that targets can be met.[9] (ii) Require project team, at inception, to develop bottom-up template that allows reporting by dispersed unit, such as village-by-village, and that shows "the math" of how each unit contributes to overall target. Reporting should be done through this template and contact information of all units (e.g. villages) provided. (iii) UNDP in its QA role should check "the math" and make calls and site visits to randomly selected village or other units to ensure validity of what is being reported and quality of implementation.	(i) designer, (ii) project team, (iii) PO, PA	Ongoing/ as needed
2. STAFFING APPROACH REVAMP: Urgently revamp project staffing strategies to ensure cost-effective staffing structure and proactive, qualified personnel: (i) For projects with mainly provincial targets, minimize or eliminate federal level staffing. (ii) Reduce share of staffing in total project costs or ensure that projects with high staffing budgets have project team carrying out activities that contractors would normally do. Ensure project management is not "layered" and technical personnel are doing the required technical work. (iii) Set up a CO task force on or, at minimum, hold discussions with CO leadership on options to ensure quality project staffing in a NIM environment. As part of the discussions consider the following options and select/ implement those that make sense: (iii-a) Improve recruitment by pre-bid outreach to qualified individuals to encourage them to apply for positions. Make calls to contacts to determine who in the market is qualified. This work may even be incorporated into PPG (design phase) and thus be able to use PPG funds. (iii-b) Specify the required aspects of a transparent project	(i, ii) Designer, PO, IP, (iii) RR, DRR, ARR, PO, PA	(i) and (ii): as needed; (iii) March – June 2021 for discussing/ task force and then as needed

[9] UNDP RTAs are now implementing an approach to project design that requires that land area targets are fully explained and fully justified. They are also putting attention on the issue that targets should be realistic, vis-à-vis the specific type of measures pursued. Thus, it seems like the design aspect of this recommendation is being addressed.

staff recruiting process in the "Management Arrangements" section of the ProDoc and ensure that these procedures, as agreed in advance with the IP, are adhered to. Further, qualifications for positions could also be more carefully described in the TORs included in the ProDoc, which could then be required to be used in actual recruiting. (iii-c) Ensure that UNDP has power needed to ensure quality in hiring decisions. If this is not possible in NIM projects, consider renegotiating NIM terms based on the interest of all in the success of projects. In its oversight role, UNDP should have enough power to ensure that only technically qualified persons with a track record of delivery are hired. UNDP should also have the power to ensure that hiring process is highly transparent and that references are called. (iii-d) For provincial hires, ensure provincial IP is on board with decision.		
3. ELIMINATE PASSIVITY WITH REGARD TO "DIFFICULT" TA TARGETS: Adopt new measures at the project design, inception, and implementation stages to maximize probability that "the really hard stuff" is achieved: (i) Require project designers to design activities not only for the "easy stuff" (e.g. draft policy, design institutional structure), but also for the "hard stuff" the project targets (e.g. promote policy adoption, prepare and deliver briefings on proposed institutional structure, bring together decision-makers to discuss, etc.). (ii) Brief the staff at inception that they should "begin with the end in mind" and not implement the project to check off a list of activities, but implement to achieve the strategic indicator targets. Ensure at inception these targets are clear and easily understandable to everyone and agreed by all to be a good reflection of what should be achieved in order to make an impact. Revise if necessary. Make sure the project team understands that, while targets and project outcomes are not fully under their control, they will be judged by how hard they work to maximize probability "the really hard stuff" is achieved. (iii) When project repeatedly fails to work towards one or more key project targets, require a detailed written explanation of why the team believes the target is not viable or not worthwhile and hold a meeting to discuss. Take issues to PSC as needed.	ARR, PO, PA	Ongoing for all
4. MORE SLM? Given that SLM is highly relevant to Pakistan and has potential to become a major national program, consider ways that UNDP can continue to support SLM enabling environment through its other work or future, direct support. Have internal meetings to discuss whether UNDP believes (vis-à-vis TE findings) the SLM concept merits such continued support and, if so, consider recommended actions: While SLMP II failed to deliver the enabling environment targeted, on-the-ground scale-up had positive successes in raising incomes and improving land quality. Given that 80% of Pakistan's land area is arid or semi-arid and given the link between land degradation and poverty, SLM may have strong potential to become a national program if the concept can be correctly framed and the enabling environment established. (i) Relevant parties should have a meeting to discuss whether they believe (vis-à-vis TE findings) the SLM concept merits further support. (ii) If result of foregoing is affirmative, in the short-term, UNDP may consider ways to continue being engaged by linking some of the still-to-be-completed SLM enabling environment work to its upcoming portfolio, particularly the UNDP-GEF Food Security Project and the UNDP-GEF 10 BTTP Project. This might include further work on SLM policies and institutional structure, improving SLM on the ground initiatives, and developing mechanisms to stimulate replication per recommendations in Part 2 of this subsection. (iii) If UNDP (vis-à-vis i) determines SLM concept very high potential, UNDP may also engage by having its CO leadership engage with MoCC or the PP&DDs to adopt the policies, regularize the DCCs, continue SLM measures in the field, and generally promote the SLM concept. (iv) If and after the foregoing two sub-recommendations are done and only if the stage is set for highly likely success in facilitating the establishment of a major program or contributing highly to the improved quality of a major program already launched, UNDP may consider full engagement via *SLMP III*.	(i) ARR, PO, PA, RTA, (ii) RTA, PO, (iii) RR, DRR, ARR (iv) RTA, PO	(i), (ii) and (iii) March – May 2021 (iv) 2022

5. REVOLUTIONIZE GENDER APPROACH: Revisit approach to gender mainstreaming in projects with aim to ensure 50-50 benefits from projects for women; consider out-of-the box solutions as needed: Recognizing that women in *SLMP II* tended to lead only on the low budget, often non-SLM or peripheral-SLM items, work to develop out-of-the-box ideas to bring village women to a higher level of leadership and beneficiary roles in projects. There are two or three possible paths in projects like *SLMP II*: (1) Require-women-leaders path: Since involvement in projects like *SLMP II* is highly beneficial to villagers, UNDP may require in similar village-based initiatives that women are equal leaders on all of the higher-budget items – not at 1% to 3%, but 50%, or even 100% of the time. This may include the requirement that the "women leader" from the relevant HH participate in all meetings on the investments, liaising with and updating the IP on monitoring visits (IP should provide female monitoring officers as needed), etc. The requirements for true participation by women should ensure that they are not just project owners in name only, but actively participating. (2) Ensure-high-benefits-for-women-by-nature-of-measure path: In this approach, projects target activities that by nature benefit women, but ensure these are not the minor spend items of the project (as was the case in *SLMP II*), but the major ones. Thus, with *SLMP II* as an example, instead of low-cost kitchen gardens and poultry distribution, higher cost SLM measures, such as kana planation and processing (shown to have high level of participation of women in KP) and grassland reseeding (understood to highly benefit women, since women control the revenue from sale of milk), that are known to benefit women should be the focus. (3) Training-women-only-on-high-benefit-measures path: Providing training on the high budget measures to women only may be another way to ensure their involvement, empowerment, and benefit. Note: If these gender recommendations seem to radical and high-risk, consider piloting in select villages to test at first.	Designers, RTA, PO, Gender Focal Point in CO	Incorporate into overall CO gender strategy March – June 2021, then ongoing
6. STABLE, TECHNICAL, CONNECTED NPD & PPDs: Set up a CO task force on or, at minimum, hold discussions with CO leadership on options to finally achieve what has been an ongoing CO aim to get IPs to appoint long-term technical persons as NPDs and PPDs, or, minimally, as Additional NPDs and PPDs. Appointment of long-term technical persons rather than civil service persons, who often change positions and agencies, will address the problem of high NPD and PPD turnover. It will also contribute to the success of the project, both through the technical inputs of the NPD and PPDs and through these peoples' long-term understanding of and connections within their organization. As part of the discussions consider the following options and select/ implement those that make sense: (i) Specifying requirement that NPD and PPDs hold long-term technical position at IP in "Management Arrangements" of ProDoc and in detailed TOR for these roles in ProDoc annexes. (i) Renegotiation of NIM agreements, if needed, to require technical persons in NPD and PPD roles, or, at minimum in Additional NPD and PPD roles. This may be taken up with Economic Affairs Division (EAD) of Ministry of Economic Affairs, if needed.	RR, DRR, ARR, PO	March – June 2021
7. HIGH-LEVEL TRACKING OF WHERE THE MONEY IS GOING: Require projects to develop and fill in templates that allow QA personnel to check and conduct high level expenditure analysis: This will address the challenge that CDRs, AWPs, and even FACE forms do not make it easy to see "where the money is going." These templates should provide one table per outcome to show how spending breaks down among major activity. Team salary expenditures should be shown separately rather than embedded opaquely across various activities. QA personnel can use triangulation, such as contracts, to spot check items in the filled in tables. Most importantly, they can use the tables to identify when spending does not fit with major project targets, such as when a large amount of funds is being spent on a less important item and almost no funds are spent on a critical target.	DRR, ARR, PO, PA	March – June 2021 to develop system/ template, then ongoing

Part 2 – Recommendations for the Government and Others who May be Involved in Future Pakistan Dryland SLM Efforts

Recommendation for Government and Others who May be Involved in Future Pakistan Dryland SLM Efforts	Parties to Act	Timeline
8. REFINING OF SLM CONCEPT: Clarify the definition and vision of SLM, in particular emphasizing the dual land improvement -poverty alleviation potential proven by income achievements of SLMP II: The dryland SLM concept should be sharpened to include the following four prongs: (a) a cross-sectoral, multi-initiative approach to improving land quality in and around villages in arid areas, with *multiple initiatives of different types* (e.g. water conserving irrigation, water table replenishment through rainwater ponds, and appropriate tree planting and grassland reseeding) taking place *in each SLM village*; (b) an emphasis on appropriate land uses and avoidance of ecologically inappropriate land conversion; (c) central focus on both conserving water and replenishing the water table; and (d) integration of all of the foregoing with substantially increasing rural incomes/ poverty alleviation.	MoCC, PP&DDs, NCU, PCUs, DCCs	March - June 2021
9. A MAJOR, NATIONAL, SLM PROGRAM? Consider SLM's potential to become a major national combined land improvement – poverty alleviation program and determine what is needed to get there: Given that 80% of Pakistan, by area, is arid and semi-arid regions, where both land degradation and poverty are serious issues, dryland SLM has critical importance for the nation. As a next step, stakeholders should both (a) consider how to improve the program technically (see Recommendations 10, 11, and 12) and enabling environment-wise (Recommendation 13) and (b) (this recommendation) determine what steps are needed to eventually launch SLM as a major national combined land improvement – poverty alleviation program.	MoCC, PP&DDs, NCU, PCUs, DCCs	March – June 2021
10. GETTING THE SLM TECHINCAL DETAILS RIGHT: Address technical issues identified in this report to improve SLM for maximum benefits and sustainability in the field: (i) Ensure multiple measures, across sectors, are implemented in each selected SLM village. (ii) Develop metrics to assess "surrounding land area improved" by each type of SLM measure and use this to ensure that enough measures with large land area benefits are being implemented. (iii) Ensure that not only water conservation, but also water table recharging, is taking place in areas that need it, such as project districts with deep and falling water tables in Balochistan. (iv) Ensure high water consuming trees and plants, such as eucalyptus, are not part of SLM program, but that indigenous species, such as lower water consuming trees that enable grass growth, are planted instead.[10] (v) Ensure that non-ecological land conversion (such as conversion of rangelands to trees without grass) is not allowed to happen. (vi) Ensure that all measures that need management plans are supplied with these (such as cutting schedules for woodlots and plans for repair of WCSs should they break). (vii) Develop marketing/ sales support for fruit and forest nurseries and for crops and orchard products when needed. (viii) Institute system whereby not only initial achievement is monitored, but follow up monitoring and technical support for sustainability is carried out. (ix) Give good attention to grassland reseeding and rangeland management interventions, which are highly needed and haven't been carried out for years in some places. (x) If measures are already being carried out by 10 BTTP in the same area as intended for SLM, ensure that these measures are ecologically sound and integrate with SLM as the "tree portion," so SLM funds can be spent on other areas, like irrigation and rainwater harvesting ponds.	PP&DDs, PCUs, DCCs, SLM IPs	Initial work on systems for (ii) and (viii) March – June 2021, then ongoing for all
11. RECONSIDERING SITE SELECTION: **Consider alternatives for site selection to ensure that the combination of land improvement results and income benefits to those who need it are rationally maximized**: (i) Consider a cluster approach to SLM village	MoCC, PP&DDs, PCUs,	March – May 2021

[10] In terms of UNDP, the agency is now using an IAS (invasive alien species) screening for its projects during the design stage to avoid situations such as use of eucalyptus in dry areas.

selection, so that land improvements can be achieved and synergized across a large contiguous area instead of small dispersed areas. (ii) Consider and discuss whether efforts should focus on dryland areas formerly productive and now degraded or on areas that have been barren/ desert for over 100 years.	DCCs, SLM IPs	
12. GETTING THE BENEFICIARIES RIGHT: **Go beyond-interest-group-based CBOs and spread the benefits equitably out to those who need it**: (i) Ensure that CBO membership has wide representation of a cross-section of the village. (ii) Ensure in beneficiary selection that targets are allocated among as many HHs as makes sense rather than having multiple measures concentrated in the hands of 1 or 2 HHs.	PP&DDs, PCUs, DCCs, SLM IPs	Ongoing
13. REALIZATION OF THE ENABLING ENVIRONMENT STARTED BY SLMP II – POLICY, DESERTIFICATION CONTROL CELLS, AND LAND USE PLANS: Take the next steps necessary, including high-level actions, to realize policy adoption, DCC regularization, and implementation of quality LUPs: (i) During the remaining time of the provincial projects or when and if the DCCs are set up, leverage the PCUs or DCCs to revise the ISLMPPs and promote them to all relevant parties for adoption. This may involve the Secretary of MoCC writing letters to the Secretaries of the PP&DDs recommending they move forward with the policies and seeing if they need technical support. Or it may involve MoCC developing collaboration with the Planning Commission to do so. Consider also the development of provincial land use policies focused on rural arid and semi-arid areas. (ii) Promote regularization of the DCCs by carrying out next steps of the relevant province. Lobby for DCC regularization and for hiring of a senior level technical specialist, so that the DCC becomes an independent section of the PP&DD. Determine whether technical specialists from the provincial agriculture and forestry departments can sit on a multi-agency provincial SLM committee to discuss and determine technical SLM priorities for the province. MoCC Secretary may write the PP&DD Secretaries to encourage DCC regularization or may collaborate with the Planning Commission to do so. (iii) Prepare quality DLUPs and VLUPs and get the DLUPs officially incorporated into sector and other plans. As for the already-prepared DLUPs and VLUPs, the specificity of the recommendations in both needs to be improved, and there should be a budget included. Further, for the existing VLUPs, the background information should be more tailored to the specific situation of the village. The finalized DLUPs should be sent officially by the PP&DDs to the relevant line departments for incorporation into their plans, or, in the case of Punjab, first to those preparing Punjab's special plans, for incorporation into those. It should be ensured when the VLUPs are finalized that all villages have a full copy of their VLUPs and understand them. Finally, efforts should be made to ensure the improved plans get connected with funding sources and are implemented. Additional, new DLUPs and VLUPs, as prepared, should meet the foregoing higher standards and be promoted as described. Efforts should only be continued if it can be confirmed that the LUPs are being used to prevent land conversion and achieve rational recommended implementation of SLM measures.	MoCC, PP&DDs, PCUs, DCCs	March – June 2021
14. REPLICATION AND FINANCING: Stimulate replication such as by promotion and SLM financing mechanisms: SLM implementers should determine measures that will stimulate replication of government-financed SLM measures. This may involve determining how to develop financing mechanisms for those villagers interested in proactively implementing/ replicating SLM measures. Revolving loan funds or grant mechanisms whereby villagers can apply to carry out SLM measures should be considered and set up if viable. Further, promotion of case studies of implemented SLM measures showing income benefits and return on investment should be carried out in villages.	MoCC, PP&DDs, PCUs, DCCs	Initial work March – June 2021, then ongoing
15. MONITORING SLM AND FUND USE: Carry out well-documented and scientific monitoring of SLM land area improved and maximize return on investment: (i) As in Recommendation 1 for UNDP, Government should develop a village-by-village bottom up approach to monitor SLM interventions so that random quality checking can be effective. Further, the methodology should allow for both "additional land area improved" and	PCUs, DCCs	March – June 2021 to develop system,

"replication directly attributable to SLM Program" to be included in the monitoring data. Monitoring should further include income benefits and number of HHs benefiting directly and indirectly. (ii) SLM implementation should maintain data on percentage of total funds going to SLM measures in the field and make efforts to maximize this percentage.		then ongoing

Part 3 – Recommendation for Government in Future Cooperation with UNDP

Recommendation for Government in Future Cooperation with UNDP	Parties to Act	Timeline
16. GETTING THE PERSONNEL RIGHT SO AS TO MAXIMIZE UNDP PROJECT RESULTS: Improve selection process for project staff and for NPDs/PPDs of UNDP projects: (i) Ensure the hiring process for project staff is highly transparent and focuses on hiring persons that have both the right expertise and a track record of working hard and delivering. Consider efforts of pre-bid outreach to qualified individuals to encourage them to apply to positions. Avoid rush recruitments that do not allow time to get the best candidates informed of the opportunity. Ensure TORs (perhaps even at project design stage) fully reflect the qualities sought both in terms of expertise and track record of working hard and delivering. Check references. (ii) For hiring provincial project staff, ensure that provincial IP plays a strong role in decision-making. This will ensure that the provincial IP is on board with the provincial staffing decisions and thus has a better probability of working well with those selected. (iii) For appointment of NPDs and PPDs consider prioritizing the appointment of technical personnel that are with the IP for the long-term instead of civil service officials who often change positions and agencies. These long-term technical persons will both ensure continuity with the often relatively long UNDP projects (e.g. 4 to 6 years) and provice the benefit of technical expertise and long-term knowledge of the IP organization. An alternate approach may be to appoint a civil service official as NPD/PPD, but a technical person as additional NPD/ PPD.	MoCC and other national level IPs of UNDP projects. PP&DDs and other provincial level IPs of UNDP Projects.	Ongoing, but especially as new projects are designed and launched

Annex 1. Terminal Evaluation Interviews and Site Visits – Realized Schedule

This annex consists of two sections. The first section shows the consultations conducted mostly virtually with the involvement of both the international and national consultant together. In some cases, the national consultant attended these meetings in person in Islamabad. The second section shows the consultations during the in-person field mission conducted by the national consultant in Punjab and KP.

Consultations – Part 1: All Virtual or in Islamabad (International and National Consultant)

November 26, 2020 (Thursday) Islamabad and Virtual (*Interviewees in Islamabad*)
1. National Program Coordinator, National Coordination Unit (NCU), SLMP II: Mr. Abdul Hamid Marwat (*presentation followed by interview*) (≈ *4 hours*) 2. Communications Officer, NCU, SLMP II: Mr. Muhammad Ameen Amjad (≈*1.5 hours*) 3. Administrative and Finance Officer, NCU, SLMP II, Mr. Arab Khan Finance Office *(≈1.25 hours)*
November 30, 2020 (Monday) Virtual (*Interviewees in Islamabad*)
4. GIS Specialist, NCU, SLMP II: Mr. Muhammad Waqas Awan (≈*1.5 hours*) 5. Deputy Chief Planning & Monitoring, NCU, SLMP II, also Chief of National Desertification Control Cell: Mr. Adnan Sajid (≈*1.5 hours*)
December 1, 2020 (Tuesday) Virtual (*Interviewee in Islamabad*)
6. Former Thematic Expert Policy Reforms & Capacity Building, NCU, SLMP II, now with Prime Minister's Office: Mr. Nadeem Shaukat (≈*1 hour*)
December 2, 2020 (Wednesday) (*Interviewee in Islamabad*)
7. Program Associate, UNDP Pakistan Country Office (CO): Mr. Mohammed Saleem (≈*1.75 hours*)
December 3, 2020 (Thursday) Virtual (*Interviewees in Islamabad*)
8. (1) ECCU Chief, and also Assistant Resident Representative, UNDP Pakistan CO: Mr. Amanullah Khan; and (2) Program Officer, UNDP Pakistan CO: Mr. Muhammad Sohail (≈*1 hour*)
December 7, 2020 (Monday) (*Interviewees in Bangkok, Sindh, Balochistan, and Islamabad*)
9. Regional Technical Advisor (RTA), UNDP Bangkok Regional Hub: Mr. Tashi Dorji *(≈1.25 hours)* 10. Sindh Provincial Program Coordinator, SLMP II: Mr. Mr. Zulfiqar Ali (≈*1.5 hours*) 11. Former Balochistan Provincial Program Coordinator, SLMP II: Dr. Khair Muhammad Kakar (≈*1 hour*) 12. Head Management Support Unit/Evaluation Manager, UNDP Pakistan CO: Mr. Syed Sabeeh (≈*1.5 hours*)
December 8, 2020 (Tuesday) Islamabad and Virtual (*Interviewees in Islamabad and Sindh*)
13. KP Provincial Program Coordinator, SLMP II: Mr. Ikram Ur Rahman (came to NCU in Islamabad for meeting) *(≈1.75 hours)* 14. Punjab Assistant Chief Planning & Monitoring, SLMP-II: Mr. Muhammad Kamran Saeed (came to NCU in Islamabad for meeting) *(≈1.75 hours)* 15. Sindh branch of Thardeep Rural Development Program (Project contractor implementing all on-the-ground SLM measures in Sindh so far): Mr. Dileep Kumar Lohana *(≈1 hour)*
December 9 (Wednesday) Virtual (*Interviewees in Balochistan*)
16. Balochistan Provincial Program Coordinator, SLMP II: Mr. Ajmal Khan (≈*2 hours)* 17. Balochistan Community Based Organization (CBO) #1: Sanzerkhel CO in Qila Saifulla District - President: Mr. Dilawer Khan (≈*0.75 hours*) (drip irrigation and olive trees on 5 acres; tree nursery) 18. Balochistan CBO #2: Semzai CO in Pishin District - CBO President: Mr. Bahdur Khan, his brother, and his daughter – virtual video field visit and consultation (≈*1.75 hours*) (system for grape growing:

water holding pool, drip irrigation, trellises, and new varieties of grapes with long shelf-life; nursery for grapes, nursery for fruit trees)
December 10 (Thursday) Virtual (*Interviewee in Punjab*)
19. Punjab former Additional Provincial Project Director (PPD) and current acting/ Additional Provincial Project Coordinator (PPC) and Member (Education) and Senior Chief of Regional Planning, Planning and Development Sector, Punjab Planning and Development Board: Mr. Khalid Sultan (≈*1 hour*)
December 11 (Friday) Virtual (*Interviewees in Punjab, Balochistan, and KP*)
20. KP Provincial Forestry Department Conservator of Forest Southern Circle: Mr. Gulzar Khan (as involved IP) *(≈1/2 hour)* 21. Balochistan CBO #3: Kholkera LSO, Winder UC in Lasbella District: LSO President Mr. Abdul Qadir and Member Dr. Sb. (≈*1 hour*) (two cement water holding pools to go with pumps and wells they already had in two villages: Wasara Ghot and Rana Bhit) 22. Pishin District (Balochistan) Forestry Officer: Mr. Essa Jan (as involved IP) (≈1.5 hours) 23. KP Provincial Project Director (PPD) also the Director General of Sustainable Development Unit of KP Planning and Development Department (PP&DD): Mr. Bakhtyar Sahib (≈0.5 hours)
December 12 (Saturday) Virtual (*Interviewees in Sindh and Somalia*)
24. Sindh CBO #1 – Chando CBO in Tharparkar District: CO President Mr. Heero in Veal Village (solar PV water pumping system pumping water from dug well to holding pool combined with drip irrigation) (≈*1 hour*) 25. Sindh CBO #2 – Sada Bahar CBO in Tharparkar District – CO President Mr. Alhu Ali in Jhanpo Village (solar PV water pumping system pumping water from dug well to holding pool combined with drip irrigation) (≈*1 hour*) 26. Policy Consultant to SLMP II/ currently with FAO in Somalia: Mr. Saleem Ullah (≈*1.25 hours*)
December 15 (Tuesday) Virtual (*Interviewee in Islamabad*)
27. National Project Director (NPD) and DG, Ministry of Climate Change: Mr. Suleyman Warraich (≈*1/2 hour*)
January 5, 2021 (Monday) Virtual (Interviewee in Balochistan)
28. Kech District (Balochistan) Forestry Officer: Mr. Nusrat (as DLUP user, etc.) (≈*1/2 hour*)
January 6, 2021 (Monday) Virtual (Interviewee in Balochistan)
29. Balochistan CBO #4 - Khasnoob CBO in Pishin District: CO President Mr. Fazal Raman in Hansul Village (olive trees, drip irrigation, and, yet to be installed water holding pools; fruit and forest tree nursery) (≈ *1.25 hours*)
January 7, 2021 (Thursday) Virtual (Interviewee in Islamabad)
30. Administrative and Finance Officer, NCU, SLMP II, Mr. Arab Khan Finance Office *(2nd interview, ≈1 hour)*
January 14, 2021 (Thursday) Virtual (Interviewee in Pakistan)
31. SLMP II Lead Designer: Mr. Khizer Farooq Omer, Consultant (≈*1.5 hours*)

Consultations – Part 2: In-Person during Field Trip to Punjab and Sindh (National Consultant)

December 14 (Monday) – Chakwal District, Punjab – Consultations and Village Site Visits
1-3. Joint consultation with Chakwal District IPs (queried one organization at a time): 1. BARI: Mr. Muhammad Rafique, Director, and Mr. Muhammad Ashraf Summrah, Senior Research Officer and Horticulturist and Focal Person for SLMP 2. NRSP: Mr. Raja Munir, Regional Program Manager, and Ms. Mubeen Almas, Senior Social Organizer with NRSP Chakwal 3. ABAD and Chakwal Punjab Forest Department (FD) working together: Mr. Naveed Khan, Engineer and Sub-Divisional Officer, ABAD; Mr. Sadiq Hussian, Project Officer, ABAD; Mr. Imtiaz Hussain Siddiqui, DFO Chakwal District, Punjab FD

4. Lakhwal CBO, Chakwal District, Punjab: Mr. Muhammad Saadat, Mr. Muhammad Dilawar 5. Narveen CBO, Chakwal District, Punjab: Mr. Khalid Mehmood, Mr. Muhammad Khaliq 6. Aas CBO (Kyala Village), Chakwal District, Punjab: Mr. Muhammad Iqbal, Ms. Narjis Batool 7. Bhilomar CBO, Chakwal District, Punjab: Mr. Azhar Hussain, Mr. Ghulam Sajjad, Mr. Mohsin Iqbal
December 15 (Tuesday) – Khushab District, Punjab – Consultations and Village Site Visits
9-10. Joint consultation with Khushab District IPs (queried one organization at a time) 9. NRSP Khushab: Ms. Parveen Akhtar, Senior Social Organizer 10. Punjab Forestry Department: Mr. Usman Farooq, Range Forest Officer, Noorpur Thal, Khushab 11. Rahdari 1 CBO, Khushab District, Punjab: Mr. Muhammad Ismail 12. Rahdari 2 CBO, Khushab District, Punjab: Mr. Muhammad Tahir 13. Rangpur Baghoor CBO, Khushab District, Punjab: Mr. Farrukh Iqbal, Mr. Saleem
December 16 (Wednesday) – Lakki Marwat District, KP – Consultations and Village Site Visits
14. KP Forest Department's Lakki Marwat District: Mr. Naqeeb Ullah, SDFO Lakki Marwat; Mr. Rafi Ullah, Community Development Officer, Lakki Marwat 15. Soil and Water Conservation Directorate, KP Agriculture Department: Mr. Nazeer Khan, Deputy Director Soil and Water Conservation Directorate 16.Wanda Miralam (Wanda Fateh Khan) CBO, Lakki Marwat District, KP: Mr. Waheed Khan, CBO Member 17. Dhoda CBO, Lakki Marwat District, KP: Mr. Muhammad Yousaf, CBO Member 18. Abdul Khel CBO, Lakki Marwat District, KP: Mr. Mir Alam Khan, General Secretary of CBO 19. Chunai Masti Khel CBO, Lakki Marwat District, KP: Mr. Rozi Khan, CBO President
December 17 (Thursday) – D I Khan District, KP – Consultations and Village Site Visits
20. KP Forest Department's D I Khan District: Mr. Shahid Noor, Divisional Forest Officer, D I Khan, KP FD; Mr. Aftab, Community Development Officer, D I Khan, KP FD 21. KP Agriculture Department's D I Khan District: Dr. Mumtaz Khan, Director Soil Conservation D I Khan; Mr. Salahuddin, Deputy Director Extension, D I Khan; Mr. Abdul Qayum Khan, Director ARI D I Khan 22. Mochiwal (Gandi Umer Khan) CBO, D I Khan District, KP: Mr. Muhammad Iqbal, CBO Member 23. Gara Ramzi (Gandi Umer Khan) CBO, D I Khan District, KP: Mr. Khursheed Alam CBO Member
December 18 (Friday) – Bhakkar District, Punjab – Consultations and Village Site Visits
24-25. Joint consultation with Bhakkar IPs (queried one organization at a time) 24. Punjab Forest Department: Mr. Nadeem Ashraf Wariech, DFO Bhakkar District 25. NRSP Bhakkar: Mr. Muhammad Nisar, Senior Social Organizer 26. Khew CBO, Bhakkar District, Punjab: Mr. Ghazanfar Abbas, President of CBO 27. Penghlar CBO, Bhakkar District, Punjab: Mr. Feroz Hussain, President of CBO, and Mr. Ramzan, President of LSO
December 19 (Saturday) – DI Khan District, KP – Consultations and Village Site Visits
28. Saeed Abad CBO, D I Khan, KP District: Mr. Noor Zaman, CBO Member

Annex 2. Progress towards Results Matrix – Full Version

Progress towards Results Matrix – *SLMP II* TE

Strategy	Indicator	Baseline	End of Project Target	Indicator Value at time of TE	Objective or Outcome Rating and Justification for Rating
Objective: Sustainable land and natural resource management in the arid and semi-arid regions of Pakistan alleviates environmental degradation and maintains the continuous flow of ecosystem services, while increasing resilience to climate change	Area of farmland in target districts with reduced land degradation resulting from introduced SLM practices	100,000 ha	400,000 ha	**+14,400.3 ha agricultural land improved (*TE Team estimate)***: The project team indicates they have no information on the baseline, so are computing progress from zero. In that regard, we might consider the target to be "+300,000 ha," so that about 1/20 of this target was achieved. In the July 2020 PIR, the project team reports 366,575 ha being achieved, which is 25 x our estimate of the achievement. Our computation includes farmland directly improved and farmland indirectly improved by project measures, as well as farmland improved by project-stimulated replication of those measures. Our detailed, bottom-up, computations are given in Annexes 16, 17, 18, and 19, provided as a separate document, (and summarized in Annexes 6, 7, 8 and 9 included in this document). According to our estimates, realized achievements of farmland improved by province are: 7,906.3 ha for Punjab, 6,177.1 ha for KP, 170.1 ha for Balochistan, and 146.8 ha for Sindh. Balochistan and Sindh achievements are considered unsatisfactory progress over the five year lifetime of the project. Punjab had the strongest performance in the field (considering the balance of both quantity and quality), whereas KP also had strong achievements in quantity and did a better job at bringing in a diverse set of measures, some with innovative aspects. Could these two provinces have pushed for a higher level of achievement in terms of area of land improved? We feel there are two ways in which they might have done so: (1) Higher efficiency: A higher percentage of overall funds going to field work rather than other uses could have increased total area improved, perhaps by up to 50%. Our rough calculations show about 50% of total provincial funds spent (including both GEF and government funds) in the case of Punjab and KP going to actual measures on the ground, though this does not include travel and per diems of district level IPs. If this proportion could have been 75%, 50% more area might have been addressed. Also, in the case of KP, significant amount of government funds were not spent that, had they been spent, could also have served to increase land area improved. At the same time, it is noted that SLMP "rates" for measures in the field were said to be lower than those of other projects. (2) Measures to stimulate a higher level of replication: This would have involved taking low cost approaches to promotion and perhaps better facilitating access to financing (a part of Outcome 3's design that was not realized). In Section 7, we provide a back of the envelope estimate of how a highly efficient	**Moderately satisfactory**: SLM in Pakistan's arid areas, as an integrated approach to improving land quality in agricultural, forest, and rangeland areas, is extremely relevant and needed. The project has leveraged a level of "true" government co-financing that is rare for donor projects to date in Pakistan. Measures in the field were found by the TE Team to be highly welcomed by beneficiaries in water-short areas. The measures substantially increase their incomes, while at the same time improving land quality. For several of the measures deployed, land quality is not only improved in the areas treated, but across wider surrounding areas. This is the case, for example, with regard to rainwater harvesting ponds, which may recharge the water table over an area of 50 acres beyond the area of the pond. In Punjab and KP, we found the project's various SLM measures deployed in very significant quantity, such that a substantial proportion of villagers (over 8% in both cases) in a significant number of villages (83 in Punjab and 57 in KP) were experiencing real increases in income and a significant total land area (11,892.4 ha in Punjab and 7,009.1 ha in KP) was improved. At the same time, we find needs for improving: (i) the strategy/ geographic layout of deployment (so that various measures are integrated in each village to be true SLM approaches); (ii) quality/ technical aspects; and (iii) sustainability of measures in these provinces. Sustainability was found to be more of an issue in KP than in Punjab, though KP has the strength of implementing a broader range of measures, particularly irrigation related ones, with more innovation. As an important example of quality/ technical aspects, it is notable that a main type of

				project, operating maximally in all provinces, with 50% more funds used in the field, and achieving 3 times replication might achieve a total improved land area of almost 200,000 ha and, thus proportionally, a farmland area improvement of almost 150,000 ha. Still, despite these optimistic maximum performance possibilities, we were impressed with the extent of activities in Punjab and KP, though identified some issues with regard to sustainability and measure selection (including lack of integration of forestry-type and agricultural soil/water conservation-type measures within villages in many cases). We suggest that a more realistic though very ambitious target, may have been in the range of 100,000 to 150,000 ha by EOP. We found a range of different SLM activities being carried out to improve agricultural land in the field. (i) Some are very innovative for the areas (e.g. drip irrigation of low delta crops in Balochistan and Sindh), whereas (ii) some are traditional, but with a new twist (e.g. gated structures, but made of metal now, and other innovations on irrigation initiatives in KP). (iii) And, there are other measures that are not new at all, having been carried out for years and now expected to be continued on a large scale with 10 BTTP (such as woodlots and shelterbelts on agricultural land in Punjab and in other provinces). The main argument for inclusion of the last category in SLMP II may be integration in the same landscapes with other measures.	tree planted (other than orchards) was found to be eucalyptus, which is known for its high water consumption and does not seem as suitable for an SLM project as would be a lower water-consuming, indigenous species. Balochistan and Sindh far underperformed in quantity, given the five year period of the project. Their strength is that they have focused on more innovative interventions (low water consuming crops with sprinkle irrigation and pumped water holding pools in both provinces, in Sindh with solar pumps) that bring very strong income benefits to the lucky few. Yet, such interventions mostly do not have land improvement benefits over a wider area than treated and the expenditures seem to benefit fewer households directly, though with a very high level of benefit. Further, there is the possibility that such measures, if replicated widely on bare land but not carried out in conjunction with water table recharging measures (particularly in Balochistan), could have negative consequences for arid areas. We find the greatest strengths of the project to be the afore-discussed on-the-ground SLMP measures and their scale-up (Outcome 3). Most other aspects of the project did not achieve what they set out to do, though there is perhaps the possibility, if another project or champion can take them up, that progress to date may be built upon and that they may be achieved in the future. The targeted policies were not adopted and the DCCs were not set up. A process has been started for DCC establishment, but it is unclear if they will be set up. Chances for establishment of permanent DCCs seem highest at the federal level and in Punjab, with KP also a possibility. If the DCCs are set up, however, developments imply they will not have as high of status as hoped. Training was not institutionalized, though a significant proportion of villages interviewed confirm village level training; and some very positive feedback on province-to-province visits for "SLM network professionals" was received. The DLUPs received some positive feedback regarding use as reference materials in Balochistan, but we did not receive consistent
	Area of degraded forests and rangelands and shifting sand-dunes in target districts benefiting from introduced SLM techniques	Forests: 43,500 ha	Forests: 100,000 ha	**+1,031.3 ha forest land improved (*TE Team estimate*)**: The project team indicates they have no information on the baseline, so are computing progress from zero. In that regard, we might consider the target to be "+56,500 ha," so that about 1/55 of this target was achieved. Our bottom-up calculations are provided in Annexes 16, 17, and 18 (in a separate document), with summaries in Annexes 6, 7, and 8 (including in this document). In the July 2020 PIR, the project team reports 109,935 ha being achieved, which is over 100x our estimate of the achievement. Our computation includes forestland directly improved and forestland indirectly improved by project measures, as well as replication directly attributed to the project. At the same time, we have strictly interpreted this indicator to refer to forestland. Tree planting on agricultural land, such as woodlots, orchards, and shelterbelts is counted as improvement of agricultural land (assessed in the cell directly above), whereas dry afforestation counts as improvement of forestland as does half of the 2x wider area benefiting from such afforestation. Yet, the project's achievement of dry afforestation was fairly limited.	
		Sand-dunes: 11,700 ha	Sand-dunes: 12,300 ha	**+290 ha sand dune area stabilized (*TE Team estimate)*:** The project team indicates they have no information on the baseline, so are computing progress from zero. In that regard, we might consider the target to be "+600 ha," so that almost half of this target was achieved. In the July 2020 PIR, the project team reports 17,900 ha being achieved, which is over 60x our assessment of the achievement. Our computation includes land directly and indirectly improved by project measures, as well as replication directly	

				attributed to the project. All improvements were due to kana plantation in KP. In addition to supporting the establishment of kana plantation directly, the project supported the purchase of machines to mechanize various aspects of the kana value chain (e.g. harvesting, preparation, and rope making). Enthusiasm for kana livelihoods in KP was strong and it seems likely this relatively small target will be met soon. Our bottom-up calculations are provided in Annex 17 (in separate document) with summary in Annex 7 (included in this document).	feedback that they these plans were being used to determine activities in the field. The VLUPs, similarly, may have been used in a few cases by villages seeking funding for donor projects, but most villages for which they were prepared do not even have a copy. And, the project team was unable to provide the TE team with copies of the majority of VLUPs. The project never initiated the DSS (other than commissioning a consultant to carry out RFP preparation). It has initiated only two village SLM funds (44 were targeted); and these don't really seem to be focusing on SLM initiatives. Thus, the project has been weak in the very areas that a UNDP-GEF project should be providing strong value-add (policy, institutional, capacity, and financing) to on-the ground-measures, in which the government already has significant experience. Still, the project has made contributions on the ground by facilitating scale up, introducing integration of various measures in the same villages (though integration could have been stronger in many villages), and by introducing some level of innovation for some of the measures.
		Range-lands: 175,000 ha	Rangelands: 287,700 ha	**+3,498.4 ha rangelands improved *(TE Team estimate)*:** The project team indicates they have no information on the baseline, so are computing progress from zero. In that regard, we might consider the target to be "+112,700 ha," so that about 1/32 of this target was achieved. Our bottom up calculations are provided in Annexes 16, 17, and 18 (in separate document) and summarized in Annexes 6, 7, and 8 (included in this document). In the July 2020 PIR, the project team reports 162,905 ha being achieved, which is over 46x our assessment of the achievement. Our estimate includes land directly and indirectly improved by project measures, though we did not confirm any replication attributed to the project. We were impressed with the rangeland reseeding initiative in Punjab and found that there is a strong need for such initiatives, and even a danger that rangelands are being converted to trees in areas where the types of trees planted would not be ecologically advisable. While rangeland reseeding is not an innovative practice, it has not been carried out in these areas for a long time and stakeholders indicate it is very much needed. Despite the positive contribution, the project's rangeland work was very limited.	
	Project communities are participating in SLM interventions and have increased their average household income earned from dryland farming and NRM activities as compared to baseline.	5% of households participating YR1	15% of households benefiting by YR5	**6.8% of HHs in project villages and 0.4% of HHs in project districts directly participating in SLM interventions *(TE Team estimate)***. Again, as the baseline was not confirmed, we may consider the target to be "10% of households newly participating in SLMP interventions." It is positive to see that the project achieved a significant proportion (68%) of the target. [Note: The project team for this indicator reports in the most recent PIR that a share of 14% of households is achieved, though doesn't designate whether this is as share of project villages or the districts overall. It further reports that 40,802 HHs are directly involved in SLMP activities, whereas our findings suggest that number is around 5,145 HHs. If also including indirect beneficiaries, though we note these are not clearly participating in SLM activities, our number rises to 13,127 HHs.] We are impressed that the project achieved significant scale within Punjab project villages (8.2% of HHs estimated to be direct beneficiaries of project initiatives or their replications across 83 villages) and KP project villages (8.8% direct beneficiaries across 57 villages). Including indirect beneficiaries, such as those who may use a rainwater harvesting pond to water their livestock, the proportion rises even further (to 17.3% of HHs across all project villages).	

				We feel this significant penetration shows the project is indeed achieving scale-up in some locales.	
		3,000 US$ aver age income	Income increased by 20% by YR5	**+14.7% weighted average income increase for directly benefiting households for measures in which feedback on income benefits was obtained *(TE Team estimate)***: We clarify that this weighted average increase in incomes is not achieved across the full population of project villages as implied in the indicator statement, but only among those directly benefiting from SLMP activities and indeed among a subset of those of 4,152 HHs that were involved in SLM measures for which we got feedback on income improvements. (The subset is comprised of 4,152 HH of the total of 5,145 directly benefitting HHs.) Yet, the indicator statement when considered along with its targets is somewhat ambiguous. Further, we find the achievement, when combined with 6.8% of HHs benefiting (and 8.2% and 8.8%, respectively directly benefiting in Punjab and KP), is significant, showing that SLM is indeed bringing real benefits to those involved in on-the-ground measures. The weighted average increase in annual HH income (upon which our estimated increase in income is based) was 105,932 Rs and an average annual rural household income of Rs720,000 per year was used as the base amount. We did find the weighted average SLM increase in HH income varied substantially by province being Rs106,288 in Punjab, Rs43,201 in KP, Rs783,000 in Balochistan, and Rs284,737 in Sindh. The higher levels particularly in Balochistan, but also in Sindh, correlate with concerns we have that the benefits are too concentrated in a few involved families. If the Balochistan and Sindh measures could be replicated substantially, the income benefits to communities will be impressive. At the same time, as will be discussed elsewhere, we also have concerns that these very-high-return-per-household initiatives are not providing the same level of ecological benefit as those which may have lower economic returns but wider benefits to the land quality of surrounding areas. Further, without incorporating water table replenishing activities, these high return agricultural activities, though water efficient, may even be a sort of threat to the water table if pursued too widely in developing bare land.	
	Total amount of CO2 equivalent greenhouse gas sequestered in the target districts due to effective application of SLM practices	7 million tons CO2 equiva-lent	Sequestra-tion of additional 20 million tons CO2 equivalent	**<100,000 tons CO2 sequestered or less than 0.5% of the target *(TE Team estimate)***: According to the annual PIRs, the SFM project was to calculate this indicator for the project. Yet, no information on its calculation was ever provided. The TE team believes that the calculation would be quite complex requiring an understanding of the use of harvested items, such as wood from woodlots. Yet, at the same time, we can see from rough back of the envelope estimates that the target is far beyond what was achieved by a greater degree than the land improvement targets as a group, suggesting this target was even more unrealistic than the land area targets. Assuming for the purpose of a very rough estimate that the SLM plantings are not harvested and that each ha of trees provides an average additional CO2 sink of 8.7 tons per year (derived from the sequestration factor for	

				eucalyptus, given the predominance of eucalyptus among trees planted, and also assuming the trees are all mature) and grasses 0.9 tons CO2 per year (for grasses, we include also the wider area benefiting, as this is said to be from seed dispersal creating new grass growth), with agriculture being neutral (sequestering some CO2 into the soil, but also emitting CO2 from agricultural practices) and assuming the average time of operation of the sinks are two years, we estaimate: [1,577.55 ha trees x 8.7 tons/ha + 3,658.4 ha grasses x 0.9 tons/ha] x 2 years ≈ 34,000 tons CO2 sequested by SLM measures implemented by the project.	
Outcome 1: Strong enabling environment at national and provincial levels supports up-scaling of climate-resilient SLM practices to combat land degradation and desertification (by reducing pressures from unsustainable use of water and land, poor farming practices, overgrazing and poor forest management) through provincial land use policies, inter-sectoral coordination mechanisms	Number of provincial land use policies with SLM and NAP mainstreamed, being implemented	0	4 provincial land use policies owned by Provincial P&D Departments.	**4 draft integrated sustainable land management provincial policies (ISLMPP) prepared, but no evidence of effective follow up on these for over 2 years; chances of adoption, at this point, do not seem strong:** No land use policies were prepared, although we found the need for these was justified, as the TE team observed rangelands being converted to forest with negative ecological consequences. The project team decided to prepare ISLMPP policies instead. We were told some "land use policy frameworks" were prepared as a basis for deciding to abandon land use policy work, but though we asked for these documents, we never had a chance to see them. We found that, compared to land use policies, ISLMPPs lacked requirements and are more like guidance documents. Nevertheless, stakeholders are fairly unanimous in their assessment that adoption would have been a positive force for promoting SLM in the provinces. Unfortunately, there is no evidence of effective follow up, after initial consultations and revisions, on these draft ISLMPPs over the past 2 years. In Punjab, it was indicated that the draft policy would need to be revised before it could be considered for adoption. In KP, it was indicated that further consensus building would be needed. In Balochistan, it seems the document may have been mostly forgotten by now. It is noted, however, that these policies are with the PP&DDs for review; and the standard procedures for policy adoption are slow.	**Moderately Unsatisfactory:** Activities were carried out in the targeted areas, but these failed to leave a lasting enabling environment post-project, which is the aim of this outcome. As a result, it's a real risk that the "SLM concept" and its integrated approach will simply disappear from the four provinces and the national agenda. While it is true that the achievements targeted in this outcome are beyond the control of the project, this is essentially true of all outcomes of well-designed UNDP-GEF projects (thus distinguishing "outcomes" from "simple outputs," such as preparation of a draft policy). What is needed is for projects to do all in their power to facilitate achievement of targeted outcomes, rather than stop with simple achievement of activities or outputs, such as the drafting of a policy. SLMP, however, by EOP had not made very strong efforts to push for achievement of this outcome in key areas. In future projects, UNDP should emphasize to the project teams their responsibility to try as hard as possible until the end to achieve targeted outcomes, even though not 100% under their control. Lack of this kind of effort in SLMP II made achievement of challenging targets a guaranteed impossibility. Explanation of what was achieved and what was lacking is as follows: -Policy: The project targeted '4 provincial land use policies "owned" by provincial P&D Departments.' The project team shifted course, apparently because the land use policy was not considered viable nor as relevant to SLM as broader ISLMPPs (integrated sustainable land management provincial policies) would be. During fieldwork, however, the TE Team found
		0	LD issues and SLM principles integrated into sectoral provincial policies on agriculture and forests in all 4 provinces	**No evidence of work on integration of LD issues and SLM principles into sectoral provincial policies found**. We did learn that provincial government funds for the project are being used to revise the Forest Policy in Balochistan. This does not, however, seem focused on the aim of integrating LD issues and SLM principles, but instead on revising an outdated forest policy.	
	Functioning National & Provincial	National & provin-	1 National and 4 Provincial	**NCU and 3 of 4 PCUs have made efforts towards "regularization" of project with DCC establishment, but it is unclear whether this will be achieved**. At the central level, the project has prepared a PC-4 (request for	

and increased capacity.	Desertifica-tion Control Cells	cial coordinat ion units estab-lished during SLMP Phase I	Coordination Units converted into respective Desertificati on Control Cells by the end of YR1	regularization), which is still being reviewed internally at MoCC before being passed to the Planning Commission. The proposal is to maintain two current government-paid staff of SLMP II, who are already considered the "DCC," but on a project/ non-permanent basis. In Punjab, regularization will depend on the results of the PP&DD's internal M&E Section's review of the project. Yet, if regularization is recommended, the PP&DD is unlikely to hire a senior person, but instead keep on the current two SLMP II team members, the Vice Director/ M&E Officer and the Admin and Finance Officer, and have them join an existing section of the PP&DD, such as Agriculture, as a sub-section. In KP, if regularization occurs, it may also be at the sub-section level without recruiting of a high level DCC head. Because Balochistan and Sindh have spent less of provincial funds allocated to the project, they appear more focused on extension of the development project than regularization via establishment of a DCC, though Balochistan is said to have a DCC regularization request underway. While most provinces currently have the government funded portion of their project continuing until end of June 2021, Sindh currently has an end-date of Dec. 31, 2021; and its PP&DD Secretary has sent a request to the Chief Minister to extend for two years (presumably until end of 2022), during which time the as yet unspent provincially allocated SLMP II funds of PKR 200 million would be utilized.	some important and relevant issues with regard to land use policy: rangeland was being converted in an un-ecological way to forest. Had land use policy been in place, such un-ecological conversions (which are a big risk of the major 10 BTT Program) could be prevented. While land use policy would have been a policy with "requirements" that would have to be followed, the ISLMPPs that were drafted appear to be guidance documents. Still, such an official guidance document/ policy would have been a positive force to sustain SLM thinking and initiatives beyond the project. Yet, the ISLMPPs, once initial consultations and drafting was completed two years ago, received no further support of which we found evidence to push for their revision and adoption. (Two meetings to promote these policies during the past two years was indicated by one stakeholder.) By EOP, it had been over two years since anything for which we found evidence of impact for was done to promote the revision and adoption of these policies. One province, Punjab, reported the draft policy was out of date and another that more consensus building is needed. Clearly, it is the role of the UNDP-GEF project to address these needs and to use its resources and team to advocate for adoption of policies drafted. -DCCs: While we found at EOP that the NCU and 3 of the PCUs are taking some actions towards the regularization of SLM in DCCs (one at the central level and one in each of 3 of the provinces), the future of these is still unclear. At the central level, a PC-4 proposal for regularization is still with MoCC and has not been forwarded to the Planning Commission. Punjab and KP, if they do regularize the DCCs, are likely to do so at a sub-section level within their PP&DDs, giving a second role as DCC Chief to existing section heads. It is unlikely high-level staff will be hired. -Training and curriculums were not institutionalized as targeted. There was positive feedback on the province-to-province exchange visits of SLM professionals and training was confirmed to have taken place in a number of

					villages, including 15 of 16 visited. The university curriculum developed was not being used. -A number of training/informational materials such as field manuals were prepared, but the TE team could find no confirmation that any of these were being used for ongoing purposes or, for that matter, had had much of an impact.
Outcome 2: Effective, targeted, and adaptive implementa-tion of SLM practices to reduce land degradation and desertification is supported through local Land Use Planning & Provincial Decision Support System using evidence-based and locally relevant information on land degradation and climate change	Number of integrated participatory district level SLM land use plans being implemented (developed with the participation of key sectoral representatives and NGOs/CBOs)	0	At least 4 districts are implement-ing land use plans integrating SLM	**2 DLUPs and 16 VLUPs viewed by the TE team; a total of 7 DLUPs and 150 VLUPs claimed. No evidence that these are being implemented in a regular way, though they have been used in a few instances for project development and briefing of DFOs**: While the TE team asked members of the NCU to provide the other 5 DLUPs reported and the other 39 to 134 VLUPs reported, they were unable to make these available to us. [Note: As for VLUPs, the most recent PIR indicates a total of 55, though a more recent presentation provided indicates 150.] The TE team consistently asked stakeholders at all levels about use of the DLUPs and VLUPs and received little positive feedback. At the village level, we found that in cases where there had been a VLUP process, the villages either did not have any of the VLUP at all, or had only a "table of prioritized activities" and no map or other aspects of the plan. As for the DLUPs, the only positive feedback was that these are useful in briefing DFOs new to the area in Balochistan. Most district level IPs, however, had nothing to say about the DLUPs, just as the villages had nothing to say about the VLUPs.	**Unsatisfactory:** We found no evidence that land use planning or decision support systems were being used to a substantial extent to achieve targeted and adaptive SLM implementation. -7 DLUPs were indicated to have been prepared. The project team was only able to provide the TE team 2 of these. While it appears all were prepared, there is no evidence that the project made any strong effort to ensure that the plans were used and we found no evidence of any kind of official adoption of these plans by relevant entities. We did receive some feedback that the DLUPs were useful as briefing materials to new DFOs in Balochistan. -150 VLUPs were indicated to have been prepared, though the most recent PIR indicates just 55. The TE team asked for all of the VLUPs on more than one occasion but was only provided with 16 of these prepared in 2016. It appears that, while others were prepared (we think that 55 in total is probably more accurate than 150), the NCU, which was supposed to be managing this process, did not even get copies. Village consultations did not turn up any instances of any village making use of the VLUPs and, in fact, those that recalled the VLUP process having been carried out indicated their village did not have a copy of the VLUP (though some said they had a copy of a table prioritizing activities, that had been prepared in a participatory fashion). There is one instance of another village raising funds from a donor based on its VLUP and donor interest in the VLUPs in a couple of districts. -The DSS was never prepared. While the concept seems positive, explained to us as a system that could provide information on the ideal locations for various SLM interventions (such as "the best places to plant olive trees," which are a very low
	SLM Information System and Decision Support System operational and being used	0	Systems operational and being used in 2 provinces	**No DSS prepared**: Preparation of a detailed request for proposals for a DSS was prepared, but the project never moved forward with recruiting a contractor for this task. We understand, had it been implemented, the DSS would have been able to offer suggestions, such as the best places to plant certain low water consuming crops, such as olive trees. The TE team heard different explanations, such as lack of funds or lack of ability to get the needed data from the relevant line agencies in each province, though these explanations did not really seem to be substantiated. Our feeling is that there was a lack of interest in pursuing this initiative. In the end, there was never any action taken to recruit an organization or consultant to prepare the DSS. UNDP repeatedly, in both the annual PIRs and other communications, reminded the project to carry out the DSS.	

					water consuming option), the project never followed up on it after paying a consultant to design an RFP. UNDP repeatedly reminded the project to carry out the DSS. Explanations made by the project team are that funds were lacking (UNDP never came through with promised co-financing) or that the project could not get the needed data from the government departments. Yet, project spending tended to be slow and it appears there were areas from which funds could have been saved for the DSS. For example, the project indicates that roughly USD225,326 was spent on awareness materials – booklets, leaflets, and brochures. Perhaps this could have been cut in half and the other half used for the DSS. Further, the project was paying for a good number of staff that could have persisted at a much higher level of effort than was put forth in obtaining the needed data. In the end, while there may be a valid argument to prioritize other efforts over the DSS, no such convincing argument was ever made.
Outcome 3: On-the-ground implementation of climate-resilient SLM activities is up-scaled in 4 provinces [Punjab, Sindh, Balochistan, & Khyber Pakhtunkhwa], 14 districts and more than 200 villages across landscapes covering 800,000 ha based on	Number of villages and households in target districts participating in SLM activities	63 villages	400 villages	**+193 villages involved in on-the-ground SLM initiatives *(TE Team estimate)*.** The project team has indicated they lack information on the baseline and are thus operating from zero. In that case, we may understand the target to be +337 additional villages, so that 57% of the target is met, based on our estimate. We found that SLMP II is operating its on-the-ground measures in 193 villages. While some were found to overlap with SLMP I, we give the project the benefit of the doubt that most are new. [The project team in its latest PIR indicates the 349 villages have been added, or 80% more than we determined.] While the target is not fully met, we are impressed with the reach of the project in a significant way to almost 200 villages, which actually is the target mentioned in the "long version" of the outcome statement provided in the CER.	**Moderately Satisfactory**: As explained in the reasoning for rating the project overall (objective rating) as "moderately satisfactory," the on-the-ground SLM interventions are the true strength of this project. Punjab achieved improvement over 11,892.4 ha of land with measures including rainwater harvesting ponds, water conveyance systems (to use the foregoing ponds for irrigation), woodlots, shelterbelts, nurseries, dry afforestation, and rangeland reseeding. Most of the Punjab measures were not considered innovative or new, though some were new to the villages in which they were introduced. KP achieved improvement over 7,099.1 ha of land with measures including all those listed for Punjab, with the exception of water conveyance systems, and, in addition, also, for irrigation, inlet/outlet structures, bunds, spillways, gated structures, and retaining walls, as well as fruit orchards with piped irrigation. As for innovation, the irrigation structures had been used before in traditional ways, but innovative aspects were
		2,300 households	12,500 households	**5,145 HHs involved directly in SLM practices *(TE Team estimate)***: Given that the project team indicates a lack of information on the baseline, the target may be interpreted to be the addition of [12,500 – 2,300] newly benefitting households or 10,200 households. According to our estimate, the project achieved about 50% of this target. If indirect beneficiaries are included, bringing the total to 13,127 HHs in our estimate, the target might be considered to be met. While we believe the wording of the indicator in its reference to "participating households" limit its assessment to direct beneficiaries, we find that the achievement of direct and indirect beneficiaries is substantial and that the direct beneficiary figure is a	

successful interventions conducted during the pilot phase addressing integrated land and water management by local communities that improve livelihoods, restore degraded ecosystems and biodiversity and build resilience to climate change				substantial proportion of the target. [The project team reports 9,882 HHs participating in SLM, or almost double our assessment.]	added (such as use of metal for the gated structures) and the piped irrigation for orchards was considered completely new. Balochistan and Sindh had much lower achievements of only 181.7 ha (Balochistan) and 146.8 ha (Sindh) of land area improved. In addition to low deployment of funds, one problem is that they focused on activities that brought great income benefits to a smaller number of HHs (e.g. sprinkle irrigation combined with pumped water holding pool), but did not provide land improvement benefits to wider areas than that treated (as is achieved with rainwater harvesting ponds in that they recharge the water table of the surrounding area). As noted, if a high level of replication were to be achieved on bare land without introduction of water table recharging measures (such as rainwater harvesting ponds), the results could actually be detrimental. For Punjab and KP, one weakness we found is that SLM activities were not always integrated within a village. That is, some villages might have been selected for "forestry type" initiatives, while others for "soil and water resource" type initiatives. In KP, as a reflection of this problem, it was even found that the Forestry Department and the Soil and Water Conservation Directorate worked with different CBOs. Because a key aspect of SLM's added value is the integration of forest-type and soil/water conservation type measures across village landscapes, it is important that on-the-ground efforts are integrated. Sustainability issues were also found in KP and, to a lesser extent, Punjab. The nurseries appear to be the most consistent problem across both provinces. Some nursery HHs were having trouble selling their plants. Others saw the effort as a one-time thing and abandoned their nursery efforts after one season. In KP, the TE found an instance of a beneficiary who was allotted very high targets (all of the dry afforestation, shelterbelts, and woodlot target for the village). This beneficiary
	Number of farms in target districts implementing soil and water conservation measures and on-farm management practices	12,600 farmers	28,400 farmers	**2,790 HHs involved directly in SLM practices on agricultural land (*TE Team estimate*)**: Given that the project team indicates a lack of information on the baseline, we suggest the target be to add (28,400 – 12,600) newly benefitting households, or 15,800 households, implementing SLM measures on agricultural land. Based on our estimate, the project achieved about 18% of this target. In terms of design, we find it strange that this target of farmers participating is over double the target number of households participating (not limited to agricultural land) in the indicator directly above. It's possible that this "farmer" indicator is referring to persons and not HHs, though the wording of the indicator itself makes it seem like HHs are the unit of measure. [The project team reports 21,575 farmers implementing SLM, or about 7.7 times our estimate.]	
	% of livestock owners in target districts participating in agreements to restore degraded rangelands	2%	10%	**0.2% of livestock owners in project districts and 2.9% of livestock owners in project villages participating in rangeland improvement initiatives *(TE Team estimate)***: As the project team indicates the baseline is unknown and they estimate progress from zero, we assume the target is [10%-2%]= 8% newly participating HHs. The rangeland improvement initiatives in Punjab were welcomed; and it is clear that more such measures are needed. The regret is that the project allocated so little of its budget to this sorely needed area, which also provides good SLM leverage in terms of cost-benefits, as 1 acre of land seeded is believed to improve an additional 3 acres. While the proportion of livestock owners across the district is very small (and indeed, the indicator states the district as the denominator), it is interesting that the proportion across project villages in significant. In the case of Punjab, the proportion across project villages was 5.5%. [The project team in the most recent PIR reports achieving 8% for this target, which we assume to be the claimed proportion across project districts.]	
	% of households participating in agreements to restore degraded dryland forests	1%	5%	**0.007% of HHs in project districts and 0.1% of HHs in project villages participating as owners in reforestation of forestland *(TE Team estimate)*.** Given the lack of baseline information, we assume this target, working from a base of zero, is to increase involvement by 4%. Dryland afforestation received a very low proportion of project funds so targets were far from met. Other tree-related initiatives, such as woodlots, shelterbelts, and orchards were carried out on agricultural land so are not counted here. [The project team in the most recent PIR reports achieving 4.5% for this indicator].	
	Number of community-financed viable local SLM funds,	5 funds	49 funds	**2 funds just recently set up in two Tharparkar villages, respectively, though not focused specifically on SLM *(Based on TE Team findings)***: We learned that these funds would be used by farmers to support cash flow needs in the planting season, such as seed purchase, whereas we had understood the aim of these funds to be for SLM initiatives. The funds,	

	resource specific business plans, public-private partnerships and targeted matching grants designed and supporting up-scaling			which will be revolving loan funds, have been provided with 300,000 Rs each from the project. According to wide consultations, many see lack of funds as a barrier to replication of SLM activities. Yet, the project was not proactive in pursuing its SLM funds target or other approaches to increasing funding for SLM.	had clear cut his dry afforestation and shelterbelts, also reflecting sustainability issues. And, the dry afforestation had not really been dry afforestation, as the area is irrigated. Another issue with SLMP II's on-the-ground-implementation work is that the CBOs set up to implement SLM activities in the villages do not seem to represent a broad cross-section of village populations, but instead are comprised of people affiliated by shared interests. This, in turn, means that beneficiaries of SLMP II are not as diverse a cross-section of villages as they are meant to be. When discussing replication, villagers often told the TE Team that lack of funds is the reason for lack of replication of SLM measures. Yet, the project did not really follow up significantly with its target of setting up 44 "additional" SLM funds or any other approach to increase financing of SLM measures. The 3 "SLM funds" that were set up are just getting started and are not designated to support SLM initiatives in particular.
		1 business plan	8 business plans	**0: No information was provided on this target and related activities.** Interestingly, some nursery owners (with their nurseries supported by the project) were needing help in marketing, with their plants lying around unsold. And a need for marketing/ distribution support was also seen with regard to some of the orchard work. Business plan support may have been beneficial, but no help has been provided.	
		1 PPP	7 PPPs	**0: No information was provided on this target and related activities.**	
		3 grants	50 grants	**0: No information wsa provided on this target and related activities.**	

Indicator Assessment Color Code Key

Green= Achieved	**Yellow= On target to be achieved**	**Red= Not on target to be achieved**

Note: We have added a light green category and gold category to distinguish between (i) achieved by EOP (dark green); (ii) on good track to be achieved (good possibility of achievement post-project) (light green); (iii) partially met or on track to potentially be achieved post-project (yellow); and (vi) could be achieved post-project but needs strong external support not currently being planned (gold).

Green = good possibility of achievement post-project	Gold = Could be achieved post-project, but needs substantial course correction not currently being planned

Rating Scale Note: Please see Annex 10 for explanation of the objective and outcome rating scale (Highly Satisfactory, Satisfactory, Moderately Satisfactory, Moderately Unsatisfactory, Unsatisfactory, and Highly Unsatisfactory). Per guidance, such ratings take into consideration not only indicators but also the objective/outcome statement overall and various findings from TE mission and document review.

Annex 3. Additional TE Findings

A3-1. Other Project Design Findings: Risks/ Assumptions and Linkages with Other Interventions

Risks and Assumptions: Both the PIF and ProDoc list the same four risks: security, competing priorities of government, slow pace of developing enabling environment, and climatic factors. The ProDoc in its discussion of sustainability also discusses risks that SLM work will not continue and explains how the design addresses these via institutional and policy measures and financing measures. This latter discussion of risk, as it is translated into targeted results and project design is especially valuable. Our main criticism, which overlaps with a recommendation made in the main test, is that the risk analysis of the sustainability measures should have been taken one step further: What if the policies are drafted and not adopted, for example? Had this been done, the project design may have taken the additional steps to ensure sufficient activities to push for policy adoption.

Linkages with Other Interventions: The ProDoc lists five other projects for which coordination is indicated to be intended, though the discussion is quite preliminary in most cases. For example, for the Mountains and Markets Project, it is said: "Mechanisms for sharing lessons and cross-fertilization of ideas will be agreed and made operational during implementation between the two projects." For all projects, information and knowledge sharing is the main proposed form of cooperation

A3-2. Other Overall Results Findings: Country Ownership, Cross-Cutting Issues, GEF Additionality, and Catalytic/ Replication Efforts

Country Ownership: The project benefited from strong country ownership from the design phase, in which the four provinces made substantial co-financing commitments of about USD2 million each. While the government co-financing achieved was much less than targeted, at about USD2.4 M realized, it was still significant, particularly so because these funds were spent directly on project activities. And, the provincial level project staff sit in the government offices of the PP&DDs. Yet, we found that country ownership was not leveraged as it could have been during implementation. While one of the targets of the project was to have SLM incorporated into the sector policies, this was not achieved. And, as noted, the project's ISLMPP's were not adopted. While the DCCs have some chance of regularization, if this happens, their influence may not be as great as hoped. As noted in the recommendations, a clearer definition of SLM, including poverty alleviation/ income enhancement in its vision may be what is needed to promote SLM more successfully to become a long-term mission for GOP with strong, ongoing country ownership.

Cross-Cutting Issues: The project in its design and implementation is well aligned with UNDP priorities, including poverty alleviation, environmental sustainability, capacity development, and knowledge management. As shown in the main text, SLM measures significantly increased income in those households that were primary beneficiaries of SLM interventions. The SLM measures are specifically designed to improve the environment. And, the project has put strong efforts in training/ capacity development in preparing certain knowledge products. UNDP's current Country Program Document for Pakistan (2018-2022) shows the project continues to be in line with UNDP priorities, particularly the Document's Outcome 2: "Enhanced resilience and socio-economic development of the country."

GEF Additionality: Additionality is stronger for Outcome 3 than for Outcomes 1 and 2. Because of the weaknesses of Outcomes 1 and 2, the additionality realized for those outcomes is not substantial in most areas, besides the capacity building area. As designed, however, the additionality would have been substantial had targets been achieved, as SLM is not currently reflected in policies and institutions in Pakistan. The potential for the DCCs to be regularized, while still uncertain and while likely to be with

lower level impact than expected, if achieved, would reflect additionality. As for Outcome 3, the additionality in this case is strong. As discussed in Section 7, some of the SLM measures were very innovative (such as in Balochistan and Sindh) so that the additionality is clear. In KP, some measures had innovative aspects and therefore show clear additionality as well. For those less innovative measures in KP and for the Punjab measures generally, which did not show as much innovation, due to lack of funds and as evidenced by the low level of replication seen, additionality is still clear. That is, there was a need for these not-so-innovative measures and lack of funds to realize them. In terms of sustainability, field measures in many cases appear to provide income improvements for the long run, but sustainability issues, such as lack of management plans for woodlots and lack of continuation of nurseries after one season were also substantial. Yet, the biggest problem in terms of sustainability is that the enabling environment (per targets of Outcomes 1 and 2) was, for the most part, not achieved.

Catalytic/ Replication Efforts: As discussed in Section 7, rough estimate of replication of on the ground SLM measures (in terms of total land area benefiting) is just 0.3 times the land area improved by the project. The TE did find enthusiasm for certain SLM measures in the field and strong interest in replication. Yet, village stakeholders indicate a lack of funds to support replication, even in cases that there is a willingness to take out loans to replicate. The project had designed activities to provide financing for on-the-ground SLM measures (such as revolving SLM loan funds), but the project implementers did not pursue these at a significant level

A3-3. Other Implementation Findings: M&E, UNDP Oversight Role, Overall Implementation, Stakeholder Engagement, Communications, and Risk Management

M&E: As noted in Section 4, we found serious problems with M&E reporting. In particular, the progress toward "land area improved" target reporting in the annual PIRs was highly unsatisfactory. Large areas of land were reported to have been improved, but no justification was given. In the July 2020 PIR, areas of land reported to have been improved during SLMP II were 366,575 ha of agricultural land, 109,935 ha of forestland, 162,905 ha of rangeland, and 17,900 ha of sand dune stabilization land. This totals 657,316 ha of land improved during SLMP II. Our rough estimate (which, in addition to the area treated, includes surrounding land benefitting, as well as replication) is that SLMP II achieved improvements over a total land area of 19,320 ha, or about 2.9% of the total area claimed in the project's own M&E reporting.

This is not to say that basic reporting on achievements in the field was absent. Punjab and Sindh provided beneficiary-by-beneficiary reporting with achievements in specific villages indicated. Balochistan and KP were less granular in their reporting, but provided district-wise reporting for each measure, with included a list of villages in each district-measure pair. Yet, the project requires reasonable and honest extrapolation beyond the areas treated to compute total area improved. This involves understanding how much surrounding area is improved for various measures and also having information on how much replication has occurred. We strongly believe that, to support quality monitoring and accurate progress toward indicator estimates, claimed field achievements need to be reported on a village-by-village basis and need to include monitoring of replication (if replication is to be counted towards achievements).

The MTR provided some important observations and recommendations. The MTR report stated in multiple places, however, that the progress reported by the project toward land area improvement targets "could not be verified." This left the reader still wondering whether the project had really achieved what it had claimed. In our own experience as terminal evaluators, developing estimates of the true level of achievements for SLMP II (as we have done in Annexes 16, 17, 18, and 19 provided in a separate document and summarized in Annexes 6, 7, 8 and 9, which are included in this document), given the data made available to us, was excessively time consumptive beyond what was reasonable for this assignment. Yet, we went ahead and did this time-consuming work anyway, in the interest of the transparency

objective of the terminal evaluation. In Section 4 (Overall Results: Progress towards Targets) and in the Section 10 (Conclusions and Recommendations), we recommend, for future projects of this sort, bottom-up, village-by-village reporting of progress towards indicator targets. This will give UNDP quality assurance personnel and evaluators alike enough information to assess progress without having to execute such an excessively time-consumptive workaround to opaque reporting as we have had to carry out for SLMP II.

Another weakness of M&E in project implementation is that the M&E framework (the Strategic Results Framework with the project indicators and targets) was not used to guide project strategy and adaptive management. As noted in the sub-section in the main text on expenditures, very limited expenditures under Outcome 1 went to the two areas that were used in the Framework to assess Outcome 1 progress -- the policy and institutional areas. Had the Framework been used properly, the lack of progress towards policy and institutional targets would have been noticed and activities adjusted. It seems as though the project did not take the strategic indicator targets that seriously as a key measure of progress.

In the field, there were also some shortcomings of monitoring work. As has been discussed in Section 7 of the main text, we found some quality and sustainability issues in the field. Ideally, the PCUs would have the technical expertise needed and would be frequently checking progress in the field, not only for basic achievement, such as area treated, but also quality. We found that, while liaison in the field was strong in Punjab, it was weaker in KP, where the PCU provided more of an administrative than technical function. (This issue is also addressed in the discussion of implementation in the main text, where it is illustrated by Exhibit 18.) And, all provinces could have benefited from stronger technical inputs on what was being done in the field.

Recommendations: There are several monitoring related recommendations, some of which have been made in Sections 4 and 7 of the main text, with the overall recommendation being the first one provided in Section 10 (Conclusions and Recommendations). Here we briefly summarize: 1. Future projects with large land area targets should be required to report achievements on a village-by-village basis. Those handling M&E (whether project team or UNDP CO) should not go mainly to villages selected by others. Instead, they should view the full list of implementation sites and select villages at random to call and visit. Already, third party spot checking takes a random sample approach. Yet, project team and UNDP field visits should also include an aspect of random sampling as they check for quality of implementation and progress towards targets and thus will have a perspective that standard auditors lack. That is to say, it's not enough for auditors to do random checking, UNDP QA should also institute randomness in its oversight. 2. If land area achievements are wider than simply the area treated (such as by benefits to surrounding areas and replication), then the methodology for computing the area benefitting needs to be clear. And, replication needs to be monitored and reported if it is going to be used as an explanation for progress towards achievements. 3. Indicators and indicator targets should be reviewed, revised if needed, and agreed upon at inception as critical tools that will well-reflect project progress. Then, in implementation, areas in which the project is falling short in reaching targets should be highlighted for strategic attention. 4. For land improvement projects, the project team should include technically qualified personnel who monitor results with frequent field visits. They should monitor not only for raw achievements but for both quality and sustainability of achievements.

UNDP oversight role: Findings from the TE mission show that UNDP provided diligent oversight to the project, both content-wise and finance-wise. PIRs show UNDP had a good understanding of the main activities and targets of the project and, in particular, pointed out when the project repeatedly failed to carry out actions to reach its DSS target. In addition, findings indicate that UNDP proactively held discussions with the project on financial matters. On a basic level, then, UNDP did its oversight well. Yet, as has been discussed, the project fell short in a lot of areas, which causes us to probe the question of whether UNDP could have done better. We think the answer to that question is "yes," though the ways in

which it could have done better are fairly challenging and linked to some of the major recommendations of this report: (1) In the monitoring area, UNDP was not able to confirm that the progress toward target reporting was valid. And, the TE team found that the reporting vastly overstated achievements. As noted elsewhere, UNDP should require projects with dispered activities (such as across many villages) to prepare bottom up reporting templates that enable UNDP to easily see the justification of claimed progress toward targets and do its own random checking of quality in the field. (Random checking should not only be the responsibilty of auditors, but also of content-experts, such as UNDP has, who have differents skills and perspectives than auditors.) (2) In terms of challenging TA activites, UNDP should be making its project teams aware that they are responsible for doing as much as possible to achieve challenging targets and getting the team focused on project targets, rather than on just checking off a series of activities from a list. In the case of SLMP II, more efforts following up with draft policies to get them adopted was needed and more and earlier efforts to try and set the stage for DCC establishment were needed. We suggest that UNDP not take the stance, for example, that the policy has been drafted and that is really all the project can do. (3) Lastly, UNDP needs to play a stronger role in ensure quality of recruitment of the project team and also that team resources are stragically mobilized to make an impact towards targeted results. While the NIM structure makes it very diffucult for UNDP to exert strong influence both in recruiting and in strategy for deploying staff in their duties, these appear to be significnat problem areas. Thus, UNDP senior management may wish to consider what can be done with its country NIM agreement or its general NIM guidelines to address them. A last issue regarding UNDP oversight is that there tends to be turnover of UNDP persons overseeing the project, resulting in lack of institutional memory. At the RTA level, the RTA to review this TE was the third RTA assigned to the project. The program officer in UNDP was the second one responsible for the project.

Stakeholder Engagement: Evidence suggests that the project put a good level of effort towards stakeholder engagement. Villagers were clearly engaged in on-the-ground measures; and many were enthusiastic about the income benefits they were getting from them. As noted, in some cases, villagers complained that the IP did the work themselves rather than letting the villagers do it (and presumably get paid for it). In a number of cases, villagers whose villages had perhaps just one intervention said that the project had promised them further activities, but these never materialized. One stakeholder based far from the provincial capital in Balochistan suggested the project have an additional field office in the south of the province for better liaison in that area. A challenge mentioned elsewhere is that the CBOs, through which the project engaged villagers, tended to have membership comprised of pre-existing interest groups, rather than including a representative cross-section of villagers.

The project engaged a range of stakeholders as IPs and in its provincial SLM networks (which carried out province to province visits) and, at the national level, at universities. Yet, the project clearly needed a stronger and very targeted stakeholder engagement program at the provincial level. This would have been a key way to influence decision makers so that the provincial ISLMPPs were adopted and the DCCs were set up. While the initial policy work did include relatively broad provincial stakeholder consultation, there was an absence of the more targeted work needed to make things happen policy-wise and institution-wise.

Communications: The project had a full-time communications officer throughout its lifetime. Areas of work include promotion of events, coordination with media, a number of knowledge products, videos, and social media. A website was set up, but was not operating at the time of the TE. The village-level training and liaison was also seen to be part of the communications strategy and, indeed, the most important part. As noted above in the discussion of stakeholder engagement, outreach was seen to be relatively successful at the village level, though there is a need in future projects to achieve broader representation in the CBOs. As implied above in the discussion of stakeholder engagement, communications strategies specific to the purposes of adoption of ISLMPPs and establishment of DCCs were lacking. The project had a general advocacy and communications strategy, but did not employ tailored communications approaches specific to achieving these high priority targets.

Risk Management: In terms of SLMP II's Environmental and Social Screening Summary, there were concerns in both the environmental and social areas. While these were addressed in implementation, there were some shortcomings, which have been discussed under other topics. In the environmental area, the project largely had a positive impact. At the same time, planting of eucalyptus in multiple districts as a part of SLM measures seems inappropriate given that this is a dryland SLM project. Also, while water conserving irrigation in Balochistan is generally quite positive, because bare land was being developed with this irrigation (which used well water), commensurate water table recharging measures (such as the rainwater harvesting ponds called for in the ProDoc) should have been concurrently adopted. As for social aspects, the project established or reinvigorated many CBOs and had many primary and secondary beneficiaries. Weaknesses, as have been mentioned, is that the CBOs were not as encompassing of a broad cross-section of the village population as would have been hoped. While efforts to engage women were significant, women were not decision-makers for main SLM interventions. Lastly, in some places, benefits were not spread as widely as they could have been.

Overall implementation: Several topics on implementation have already been covered here and in the main text. The main comment on overall implementation is that a more strategic, high level approach is needed. As recommended elsewhere, implementation should be target and achievement focused, rather than focused on checking off activities on a list. Instead of a checking-off-activities-on-a-list approach, the implementers (IP, UNDP, project team) should assess the targets at inception, ensure they are reasonable and well-designed, make any adjustments as necessary (where allowed) and then launch the project with the intention of achieving the targets. Further, a new approach to assessing spending should also be instituted. This is discussed elsewhere. In summary, there should be a simple template where it can be shown where the funds are really going – how much is going to each major activity area and how much is going to staffing. If the funds are seen to be flowing to non-priority areas instead of the targeted achievement areas, adjustments should be made.

Annex 4. Additional Expenditure Tables to Supplement Section 9.3

Exhibit A4-1. Outcome 1 – Policy, Institutional, and Capacity Building – Rough, Unofficial Activity-Wise GEF Expenditures (in USD)

Description of Major Activity Area	Rough, Unofficial GEF Expenditures to 12/24/2020 (USD)
Land Use Policy Framework (one per province), *contract managed by NCU*	7,943
ISLMPPs (one for each province), *3 ICs, managed by NCU*	43,424
Policy Work Sub-Total	***51,367***
Institutional Work Sub-Total	***0.0***
Field Based Training Manual, *IC managed by NCU*	7,520
Payments for Ecosystem Services, *IC managed by NCU*	8,870
Best Practices on SLM (KP and Punjab), *IC managed by NCU*	9,120
Indigenous Knowledge on SLM (KP and Punjab), *contract managed by NCU*	9,000
Studies for SLM criteria and indicators validated and mainstreamed into sectoral policies, *contracts, managed by PCU*	13,500
Gender analysis of the program, I*C managed by NCU*	2,603
Advocacy and Communication Strategy, *contract managed by NCU*	7,765
Information/ Knowledge Building Documents Sub-Total	***58,378***
4 large desertification seminars with universities, *managed by NCU*	18,757
15 awareness raising seminars, *managed by NCU*	39,000
Grassroots training/ Capacity building/hands on exercise of villagers – 4 to 5 different activities including 16 field demo days, *managed by PCUs (so part of PCU budgets)*	140,000
University curriculum, *managed by NCU*	3,874
Provincial SLM network trips – visits by each province to other provinces; National SLM Network launched in four cities and follow up meetings and activities of the network conducted, *managed and budgeted by PCUs mainly, but NCU paid for their experts to attend*	32,000
Awareness videos, *managed by PCU*	17,533
Awareness Material, including booklets, leaflets, brochures – all written documents, some designed by consultants, *managed and budgeted by both PCUs and NCU*	225,326
Website, *managed by NCU*	3,000
Training of provincial /district officials in NRM/SLM field related activities, *managed by PCUs*	27,000
Training and Capacity and Awareness Building Sub-Total	***506,490***

NCU/PCU staff salaries	368,426
Dec. 2020 staff supplement/ settlement payment for ending employment	225,000
Staff Salaries and Benefits Sub-Total	***593,426***
Total	**1,209,661**
Gap between actual Outcome 1 GEF expenditures as of Dec. 24 (1,249,981.64) and activity-wise estimates above	***40,321***

Source: NCU Team and NCU provided contracts.

Exhibit A4-2. Outcome 2 – Land Use Plans and DSS – Rough, Unofficial Activity-wise GEF Expenditures (in USD)

Description of Major Activity Area	Rough, Unofficial GEF Expenditures to 12/24/20 (USD)
Guidelines for District Land Use Plans and Village Land Use Plans, *contract managed by NCU*	4,293
2 District Land Use Plans (including additional Land Cover Maps) Bakkar and DI Khan, *2 contracts managed by NCU*	17,860
5 District Land Use Plans and additional Land cover Maps *whether managed by NCU or PCUs is unclear*	45,294
Village Land Use Plans – estimated 55 plans completed *whether managed by NCU or PCUs is unclear*	52,000
Land Use Plans Sub-Total	***119,447***
Decision Support System Concept/ TOR Preparation, *NCU managed*	4,307
DSS Sub-Total	***4,307***
Baseline status of desertification and land degradation in target districts, *NCU managed*	10,206
Assessment of Plantation coverage using GIS/RS in Thal Districts (Khushab, Bhakkar, Layyah) of SLMP, *NCU managed*	4,866
Satellite imaging and image processing by Terra Matrix Technologies, *managed by NCU*	28,500
Other Contracts Sub-Total	***43,572***
Staff salaries – NCU and PCU	129,119
Staff Salaries Sub-Total	***129,119***
Total	**296,445**
Gap between actual Outcome 2 GEF expenditures as of Dec. 24 (442,454) and activity-wise estimates above	***146,009***

Source: NCU Team and NCU provided contracts.

Exhibit A4-3. Outcome 3 – On-the-Ground Implementation of SLM Measures in the Four Provinces – Rough Unofficial Activity-Wise GEF Expenditures (in USD)

Description of Major Activity Area	Rough, Unofficial GEF Expenditures to 12/24/20 (USD)
Balochistan On-the-Ground Implementation of SLM Measures, *managed by PCU*	174,856
KP On-the-Ground Implementation of SLM Measures, *all via LOA/ contracts managed by PCU*	254,427*
Punjab On-the-Ground Implementation of SLM Measures, *contracts with NRSP; for the rest, no contract with government agencies as per PC-1*	299,438†

Sindh On-the-Ground Implementation of SLM Measures, a*ll via contracts, main one with TRDP and now new contracts with one other NGO, all managed by PCU*	142,541‡
On-the-Ground Implementation of SLM Measures Sub-Total	***871,262***
Staff salaries – NCU/PCU	242,932
Staff salaries – Sub-Total	***242,932***
Total	**1,114,194**
Gap between actual Outcome 3 GEF expenditures as of Dec. 24 (1,729,007) and activity-wise estimates above	***614,813***

Main source: NCU Team and NCU provided contracts. Also, cross-checking with our estimates for on-the-ground SLM measure expenditures and with PCU reporting to us of GEF funds spent on on-the-ground SLM measures and/or total GEF funds spent.
*Note: KP reports USD 254,427 of GEF funds spent on on-the-ground measures instead of the USD220,415 estimated by the NCU. As the KP figure may be more up to date, we use that instead.
†Note: NCU reports USD 435,994 for GEF expenditures for Punjab on-the-ground measures, but Punjab reports spending USD299,438 and provides very comprehensive expenditure tables, showing all funding sources by outcome and project management. Thus, we use the Punjab figure.
‡Note: Sindh reports 22.12 M PKR spent on contracts. Since Sindh got a late start and exchange rate was relatively low, this seems to fit with the NCU estimate.

Exhibit A4-4. Project Management – Rough Unofficial GEF Expenditures by Expenditure Area (in USD)

Description of Major Activity Area	Rough, Unofficial GEF expenditures to 12/24/20 (USD)
Office rent, office maintenance, utility bills (Islamabad/ NCU)	96,192
IT equipment –printer cartridges, etc.	7,924
Office Supplies	11,050
Office expenses Sub-Total	***115,116***
Monitoring Visits, all PCU expenses	143,286
Vehicle maintenance and fuel	118,790
Transport Sub-Total	***262,076***
Staff salaries – NCU and PCU	88,262
Salaries Sub-Total	***88,262***
Miscellaneous	52,123
Other Sub-Total	***52,123***
Total	**517,627**
Gap between actual Project Management GEF expenditures as of Dec. 24 (141,393) and area-wise expenditure estimates above	***-376,234***

Main source: NCU team.

Annex 5. CBO and District-Level IP Questionnaires

1. Questionnaire to Guide CBO Interviews

Background
1. How many and which villages are part of the CBOs? How many households (HHs) in each village? What is the typical size per household?
2. How many CBO members? How many women members of the CBO? (Or is there parallel women's organization? If so how many members?)
3. Was the CBO started by SLMP II or pre-existing?

SLMP On-the-Ground Interventions – Main Interventions
4. Tell us about the main intervention or interventions of SLMP in your village(s). Please describe the equipment, groundworks, new crops, etc. And please say how many of each intervention there are in the village(s) (for example, how many ponds, how many greenhouses, etc.). And, please describe the scale of each intervention (e.g. size of the pond, acres irrigated, etc.).
5. How many families are involved/ benefitting from each of the main interventions? If there are different types of benefit (e.g. irrigation versus water for livestock) please differentiate the number of beneficiaries for each.
6. What was total investment for each of the main interventions? (If there is more than one such intervention, please estimate the investment for a single unit of the intervention/ for one scheme.) How much cash did the project provide towards the intervention? Did the household provide cash – if so, how much? Did they provide only in-kind – if, so what?
7. How many acres of land are benefiting from each type intervention (on a per unit basis – e.g. per pond)? (Please indicate the land benefiting directly/ directly treated and also the surrounding area also benefiting if any.)
8. How much has each type of intervention improved income? (and for how many HHs)?
9. Are these interventions new/ innovative to the villages? Has anyone done it before here? Is there anything new about how it is being done?
10. Any there any replications of the intervention already? Or planned? Who is replicating? Are these replication attributable to inspiration from the project?
11. If there are replications or if you want to replicate in the future, what is the source (or possible source) of financing?
12. How were the beneficiaries selected?

SLMP On-the-Ground Interventions – More Minor Ones/ Pure Livelihood (not SLM)
13. Are there other smaller, SLM interventions in the village that have less major impact on land? Have there been special livelihood activities for women? What investment or materials did the project bring? Who were the beneficiaries and how did the benefit? How much have they increased their income?
14. How were the beneficiaries selected?

VLUPs:
15. VLUPs: Do you know about this? Does village have a copy? Is it being used?

Training:
16. Training: Did the project provide training? What kind? Was it useful?

Women

17. This project aimed to empower women. Yet it sounds like most of the decisions of the on-the-ground measures were made by men. Is this correct? Aside from the women-specific measures (such as vegetable gardens), how have women benefited from the on-the-ground SLM measures? Is there a way we could design projects in the future to make sure women have more of a role in decision-making and more of a benefit?
18. How actively did women participate in the implementation of SLM measures (or ongoing management of these) in your villages?
19. If there was training/ capacity building in the village, how many out of what total were women?

Closing:
20. Problems encountered?
21. Recommendations for the future?

2. Questionnaire to Guide District-Level IP Interviews

Background
1. Team of IPs: Were you the only organization carrying out on-the-ground implementation of SLMP measure for SLMP II in your province? If not, who were the others?
2. How many of your team members were involved in actual implementation in the field?
3. Did you sub-contract to any organizations? If so to whom?
4. Did you have an LOA or sub-contract with the project? If so, what was the value of the LOA/ sub-contract? How much/ what proportion of this was used on procurement/ sub-contracts and how much was used for overhead/ travel?

Main interventions
5. What were the main interventions you were carrying out in the field? For each main type of intervention, please describe and explain the equipment involved.
6. How much land area was directly improved by each intervention (for each unit of implementation/ each scheme)? Given the number of schemes implemented, do you have an estimate for total land area benefiting from each type of intervention?
7. How did the villagers benefit from each intervention? What kind of increase in income did they see?
8. What was the cost of each intervention (per unit/ per scheme)? How much cash did *SLMP II* provide? How much cash did the villager provide? Did the villager also provide in-kind?
9. Is there a way to reduce costs of these measures in the future?

Beneficiaries and scale of implementation
10. How many villages did you carry out each type of intervention in? And for each village, how many units/ schemes of each type of intervention did you do, on average? What's the rough total of number of units/ schemes of intervention of each type you did in the district?
11. For each type of intervention you did, how many households benefited directly (in a big way) from each scheme/ unit? Were there other households that benefited in a less big way (such as through access to a pond for watering animals)? If so, how many per scheme got this lesser benefit and how significant was their benefit? If significant, why?
12. In terms of coverage in your district: Roughly how many villages in total in the district are there that are challenged by arid and semi-arid conditions? (Are you talking about revenue villages or natural villages?) How many of these villages saw implementation of major measures under SLMP II that your organization carried out? And, in each village, what was the typical number of households benefitting and what proportion of households benefited (in a big way) from SLMP II? (What household size are we talking about?) What number of households (typically per village) and what proportion of HHs in the

village benefited in a small way? Do you have an estimate of the total number of households across all villages that benefited in a big way and in a smaller way, respectively?

Innovation and Replication
13. Were these measures new to the area? Or did they have new aspects?
14. Were they replicated or do you expect them to be replicated?
15. If there is replication, where will the funds come from?

CBOs and Beneficiary Selection and Women
16. Did the project help establish new CBOs? Or was there already a CBO in most villages before SLMP II?
17. How were the main beneficiaries selected? Was it usually the mainly the CBO president/ leader whose family benefited, or was it usually multiple families in each CBO?
18. How much were women involved in decision making for the major measures? (More minor measures will be discussed below.) What proportion of agreements were signed with women? Aside from decision making, how do women benefit from implementation? Are they actively involved in management? If there was training, what proportion of trainees were women?

Conclusions/ recommendations on major measures
19. In your view, which measures are most beneficial in improving land quality? Which measures are most beneficial in improving income?
20. Which measures do you think should be done (or continued to be done) in the future?
21. Do you think there is going to be spontaneous replication (funded by villagers themselves and/or third parties) in the future of certain measures? If so, which measures? Or, do you think future replication will depend on government funding?
22. Were there challenges with implementation? Would you suggest a different approach for the future?

Other more minor measures
23. Aside from the above SLM measures that aim to improve land quality, were there other more minor, less costly measures that were implemented, such as livelihood activities for women? How much did they benefit in increased income? What were these activities? In how many villages were they carried out? How many women in each of these villages, roughly, participated?

DLUP and VLUPs
24. Was a DLUP prepared for your district? Was it officially adopted? Is it being used? Is it useful in your view?
25. If you know, how many (or roughly how many) VLUPs were prepared for villages in your district? Do the villages have them? Are they being used? Are they useful in your view?

Training
26. Was training carried out in the villages that you know about? What were the villagers trained on? Did the training result in implementation of measures that improved land quality?

Annex 6. Punjab Indicator Assessment – Summary Version

Note: The full version of the Punjab Indicator Assessment is provided in Annex 16, which is a part of a set of four such annexes (one for each province) provided in a separate document. Here, we include only the introduction and the summary table section. The other sections, found in the separate document provide village level information for various measures upon which some of the summary tables are based.

Introduction to approach: This assessment is prepared by the TE Team based on: (a) bottom up information on on-the-ground SLM measures as shared by the Punjab PCU combined with (b) TE Team interviews with nine CBOs across three of Punjab's four project districts, including field visits to eight of those CBOs. (c) Interviews with Punjab district-level project IPs in the three visited districts are also referenced. Findings from the field work are important both for a sort of "spot checking" of the accuracy of data provided by the PCU and, just as importantly, as a form of input for more complex indicator analysis.

An example of the more complex indicator analysis has to do with "area of land improved," a key aspect of the objective level indicator targets of the UNDP-GEF project (i.e. area of agricultural land improved, area of forestland improved, and area of rangeland improved). To assess such indicators, there is a need not only to understand the areas treated by specific project measures, but also to assess (i) the scale of the surrounding areas of land that might benefit from those measures and also (ii) the extent of replication stimulated by those measures, which then might also be counted as land improved. Through site visits and interactions in the field with CBOs and district-level IPs, the national consultant was able to determine rough rules of thumb for calculating the wider benefit of land improvement of certain measures. For example, rainwater harvesting ponds have the positive quality of recharging the water table over a much wider area than the 5 or so acres a pond might irrigate with a water conveyance system. The wider area benefiting from water table recharging, it was found, might be around 50 acres around the pond.

The number of households benefitting from various measures is also an important "complex" indicator that benefitted from our findings from fieldwork. Yet, even so, different villages sometimes had quite different inputs on this indicator in relation to a particular measure. Further, to increase clarity for those reviewing the "households benefitting" indicators, we felt it was important to differentiate between those households with very strong income benefits, which are typically the same as those who are directly involved with the measure implemented, and others with lesser benefits. We found the "primary beneficiary/ direct beneficiary" households typically benefit from income increases in the hundreds of thousands of PKR, or sometimes over 1 million PKR, per year, though in some cases the amount is only in the tens of thousands PKR per year. "Indirect beneficiaries" typically do not get such a substantial and direct increase in income, but their life becomes better in some way, such as through better access to household or livestock use water or more convenience in gathering twigs for fuel.

As the reader reviews the bottom-up tables (organized by type of measure) later in this assessment (*provided in the separate document that includes the full versions of these assessments, but not in this summary version*), he or she will be able to see that those villages visited are differentiated with red font and sometimes more details/ explanation associated with their entries in the tables. In many cases, findings from the field are used to develop rough estimates for indicators for all villages in which a certain type of measure was carried out. At other times, data from the PCU, if provided, is referenced. We emphasize that this methodology of using field work when possible to extrapolate to other villages is quite rough, as it is unable to consider the variations between villages within a district for those villages not visited. Yet, we feel that the very

rough estimates provided allow us to meet our two-fold goals in preparing this assessment: (1) First the assessment provides very rough, ballpark estimates to get an idea of progress towards targeted indicators of the UNDP-GEF project. (2) Second, the assessment provides stakeholders that might be carrying out such projects in the future some possible methodologies to use in evaluating indicators that are less straight forward than simply "area treated." If the aim of policy makers, donors, and investors is really to enhance land quality, then work in the field should not be evaluated simply in terms of PKR spent or areas treated, but in terms of the wider benefits to land quality achieved. Evaluation of such indicators, though required by UNDP-GEF project design, was a major shortcoming of the overall SLMP II project. The project as early as the mid-term review was claiming a very high level of progress towards the overall target of 800,000 ha, but this was never substantiated, despite substantial efforts to request such substantiation through the TE process.

Comparing the PCU reported information to what was found regarding the 9 CBOs interviewed did often turn up discrepancies, though we believe the deviation is not enough to impact our overall aim to come up with very rough estimates of achievements and resources used. When there were such discrepancies, sometimes, with additional follow up, stakeholders told us they had forgotten to mention an intervention during the interview that was reported by the PCU and which they said had indeed occurred after all. Further, while in some cases we found that the number of a certain type of intervention in a village as determined during field visits was significantly less than reported, we also found instances that interventions found in villages and indicated to be carried out by SLMP II were sometimes not reported in the PCU data.

Comparing the PCU extrapolations on certain aspects to what was found in the field, particularly with regard to "surrounding land benefiting," we sometimes chose a different approach/ different benchmarks than those used by the PCU. In general, we were more conservative in our estimates, though feel that determining the area of surrounding land benefiting is a complex topic, deserving ongoing discussion by implementers of SLM activities in the future. For example, as mentioned, we used a benchmark of 50 acres of land improved per pond, whereas the PCU provided estimates were generally substantially higher. Determining secondary/ indirect beneficiaries can also be complicated and deserves further attention. Even determining primary/ direct beneficiaries can be challenging in some cases.

The first three tables below are summaries of findings related to the project indicators in the UNDP-GEF ProDoc. These summaries, along with similar summaries for the three other provinces, are used to compute total achievements for these indicators as presented in the main body of this report. After the summary tables, the reader (*in the complete version of this assessment provided in a separate document*) will find bottom up tables organized by land type (agriculture land, forestland, and rangeland), with one table for each main type of intervention. These tables show, on a village by village basis, the achievements for different types of SLM interventions. It is the results (or "totals") from these bottom up tables that then become the rows in the aforementioned summary tables.

Findings show that Punjab had the highest achievements of all four provinces in terms of land area improved. While the achievement in the ballpark of 12,000 ha of land improved is far below the overall target of the project (which targets an increase in improved land of around 470,000 ha total or an average of 117,000 ha per province), we feel that overall target is not realistic. Indeed, despite our efforts to unravel the history of the project, we were unable to determine the method used to set the project's overall targets in the first place.

SECTION 1. SYNTHESIS AND OVERALL INDICATOR ACHIEVEMENT FINDINGS

Summary Table 1 – Punjab Indicators – Set 1 of 3- Indicators by Type of Measure and Type of Land

Measure	No of systems installed	Area of Land Directly Improved	Surrounding Land Area Benefiting	Land Area Directly or Indirectly Improved by Replication	Households/ People Benefiting Directly/ Income Benefits (includes replications)	Households/ People Benefiting Indirectly (includes replications)	Total of GEF Investment and Gov't Investment
1. Rain Water Harvesting Pond (some with water conveyance system)	115 ponds (33 with water conveyance systems)	215 acres (87 ha) benefitting directly from pond plus water conveyance system irrigation	5,700 acres (2,307 ha) benefiting from water table recharge of project ponds	6,870 acres (2,780 ha) replication including irrigated + water table recharge area	422 HHs (of which 112 benefit from irrigation with weighted average Rs258,750/HH/ yr based on interviews)	2,755 HHs benefiting from daily use or livestock use access to water in pond	Rs 60,701,799 USD378,836
2. Water conveyance system (without rain water harvesting pond supported by project)	17 water conveyance systems	85 acres (34.4 ha)	0 (land area benefit beyond treated area)	90 (36.4 ha)	57 HH benefiting from WCS irrigation (including replication) weighted average Rs200,700/ HH/ yr	0.0 (no secondary beneficiaries as does not include rainwater harvesting pond)	5.483 M Rs (USD34,232)
3. Wood lots	139 woodlots	695 acres (281.3 ha)	1,400 acres (566.6 ha)	1,940 acres (785.1 ha)	292 HHs Weighted avg. Rs 956,000/ 5 yrs/ HH	1,996 HHs (twigs/leaves & reduced wind erosion)	Rs 16,262,400 (USD101,492)
4. Shelterbelts	44 shelter belts	136 av. km; 84.1 acres (34.0 ha)	612.0 acres (247.7 ha)	875.5 acres (354.3 ha)	100 HHs direct beneficiaries (including replication)	679 HHs indirect beneficiaries (including replication) – free fuelwood and land stabilization	Rs 5,527,640 =USD34,429
5. Nurseries	16 forest + 10 fruit = 26 nurseries	5.25 acres (2.1 ha)	0.0	3.75 acres (1.5 ha)	41 HHs direct [expected income forest nursery Rs	0 HHs indirect	Rs 6,158,000 (USD38,360)

					50,000/HH/yr; expected income fruit nursery uncertain/ sustainability in question.]		
6a. Dry Afforestation – benefit to ag land	---	---	286.9 ha agricultural land	102 ha agricultural land	---	---	---
Agricultural Land Subtotal	**341 various**	**438.8 ha**	**3,408.2 ha**	**4,059.3**	**912 HHs**	**5,430 HHs**	**94,132,839 Rs USD587,349‡**
6b. Dry Afforestation – benefit to forest land and beneficiaries	10 dry afforestation sites	709 acres = 286.9 ha (all forestland)	286.9 ha forestland	203.9 ha forestland	86 HH direct from project or replication [Rs 343,750/HH/yr average over 5 yr]	170 HH indirect from project or replication	Rs 8,526,000 (USD53,110)
Forestland Subtotal	**10 dry aff. Sites**	**286.9 ha**	**286.9 ha**	**203.9 ha**	**86 HH**	**170 HH**	**Rs 8,526,000 (USD53,110)**
8. Rangeland Reseeding	32 initiatives	802.1 ha directly improved	2,406.3 ha neighboring areas improved	0	1,982 HHs directly benefiting	0	Rs 23,784,350 (USD148,158) for grass planting
Rangeland Subtotal	**32 initiatives**	**802.1 ha**	**2,406.3 ha**	**0**	**1,982 HHs**	**0**	**Rs 23,784,350 (USD148,158)**
GRAND TOTALS	**383 initiatives**	**1,527.8 ha**	**6,101.4 ha**	**4,263.2 ha**	**2,980 HHs**	**5,600 HHs**	**126,443,389 Rs USD788,617‡**

Total Land Improved including indirect benefit to neighboring areas:
Agricultural land: 438.8 ha direct + 3,408.2 ha surrounding area + 4,059.3 ha replication (including direct and surrounding area) = 7,906.3 ha
Forestland: 286.9 ha direct + 286.9 ha surrounding area + 203.9 ha replication (including direct and surrounding area) = 777.7 ha
Rangeland: 802.1 ha direct + 2,406.3 surrounding area = 3,208.4 ha
Total land are improved: 7,906.3 ha agricultural land + 777.7 ha forestland + 3,208.4 ha rangeland = 11,892.4 ha

Total beneficiaries including replication:
Total agricultural land beneficiaries: 912 HHs primary beneficiaries (major benefit) + 5,430 HHs secondary beneficiaries = 6,342 HHs
Total forestland beneficiaries: 86 HHs primary beneficiaries (major benefit) + 170 secondary beneficiaries = 256 HHs
Total rangeland beneficiaries: 1,982 HHs primary beneficiaries (major benefit) + 0 HHs secondary beneficiaries = 1,982 HHs
Grand total beneficiaries: Primary beneficiaries (major benefit) 2,980 HHs + secondary beneficiaries 5,600 HHs = 8,580 HHs

‡Actual amount in USD should probably be higher, as PKR has depreciated over time and we are using today's exchange rates (Jan. 2021).

Summary Table 2. Punjab Indicators – Set 2 of 3: Other Objective and Outcome 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
% of HH benefiting	% of districts' rural HHs benefitting from SLMP II and replications, including primary and secondary beneficiaries ≈ 8,580 HHs /714,432 HHs = 1.2% % of involved villages' HHs (back of the envelope): % of involved villages' HHs*: -Primary beneficiaries (major benefit): 2,980 HH/ 36271 HHs = 8.2% -Secondary beneficiaries: 5,600 HH/36,271 HH = 15.4% -Primary and secondary beneficiaries combined: 8,580 HH/ 36,217 HHs = 23.7% (real share may be lower)* *Note: Real proportions of households benefiting may be somewhat lower due to double counting among beneficiaries of different activities. The larger the share of the village that benefits, the more likely double counting is. These estimates do not include kitchen gardens.	District populations: Chakwal: 1,495,982, Khushab 1,281,299, Bhakkar 1,650,000, Layyah 1,824,000. Total population of 4 districts: 6,251,281. Assuming 80% rural yields rural population of 5,001,025. Assuming 7 persons per household, yields 714,432 HHs. Total Punjab SLMP beneficiaries of 8,580 HHs are just 1.2% of the roughly estimated total number of rural households across the four districts. [Note: PCU provided data suggests 828,249 rural HH across the four districts, higher than our estimate, but still yielding a similar result (≈1% of households benefiting). SLMP II was active in about 83 villages in Punjab. Because we were uncertain about data on the number of households in each village, we faced challenges in assessing what share of households benefited. As an estimate, we take the average size of village among the nine visited. The household number in the villages visited was reported to us by stakeholders as follows: Lakhwal 437 HH, Naveen 300 HH, Kyala 400 HH, Bhilomar 400 HH, Rhadari 1 500 HH, Rhadari 2 500 HH, Rangpor Baghoor 250 HH, Khew 700 HH, Penghlar 450 HH. Average HH number is: 437 HHs. So rough population estimate for the 83 villages is 437 HH/ village x 83 villages = 36,271 HHs across 83 project villages. [Note: The PCU provided data on HHs per village, but this did not match what we found in the field, often being much less. The total HHs across all villages based on this PCU data was just 14,069 HHs, which would imply 61% of HHs benefited from the project.]
% increase income for direct beneficiaries of major activities	<u>Estimated income increase of primary beneficiaries:</u> pond+WCS: 112 HHs: Rs 258,740/HH/yr (est. average) WCS only: 57 HHs: Rs 200,700/ HH/yr (est. average) Woodlots: 292 HHs: Rs 191,200/HH/yr (est. average) Dry afforestation: 86 HHs: Rs 68,750/HH/yr (est. average over 5 years) Rangeland reseeding: 1,982 HHs: Rs 84,000/HH/yr	Based on village interviews, we provide an average income increase for key activities of ponds+WCS, WCS only, woodlots, dry afforestation, and rangeland reseeding. Shelterbelts are excluded because income benefit information was not obtained. Nurseries are also excluded, because income information given appeared to be projections rather than realized; and TE team also detected some sustainability problems with nurseries.

	Weighted average of all: Rs 106,288/HH/yr for 2,529 HHs Note: HH numbers above included estimated replication <u>% increase in household income</u> Rs 106,288/720,000 Rs ≈ 15% increase in income for primary beneficiaries (very rough back of the envelope calculation)	We lack data on rural household income in the project areas. One report we saw indicates average rural monthly income in Pakistan was 30,000 Rs in 2016. Given inflation and gradual income rises, we might guess that level is up to a maximum of 60,000 Rs per month or 720,000 Rs/ year. We use the weighted average annual increase in HH income for the five activity categories given, which is Rs 106,288/HH/yr.
Number of villages	83 villages in which there are on-the-ground interventions	-83 distinct villages in Punjab PCU indicator listings -48 distinct CBOs in Punjab CBO listing. Some CBOs have SLMP II activities in more than one village
Number of HHs participating in SLM activities	2,980 HHs	We use primary beneficiaries from Table 1. We don't include secondary beneficiaries, as they may be accessing water or twigs from the on-the-ground intervention, but are not necessarily participating directly in SLM initiatives.
Number of farmers/ farm HHs implementing SLM	912 HHs	This is based on Table 1's beneficiaries for agricultural land. It only includes primary beneficiaries, as these are seen as the only ones directly participating in on-the-ground SLM activities
% livestock owners in target districts participating	-Estimated 1,982 households participating. -Share of all rural households in district=1,982/714,432=0.3% -Share of all rural households in 83 project villages = 1,982/36,271=5.5%	Number of HHs is based on primary beneficiaries for rangeland activities, which are 1,982 households. The challenge in assessing this indicator is that we lack information on the number of livestock owners in target districts, or even in project villages. To be conservative, we might assume all households own livestock. All HHs in the 83 project villages are estimated above to be 36,271 HHs. All rural households in the 4 districts are estimated above as 714,432 HHs. The PCU has provided data that shows in most project villages 80-100 of HHs are involved in animal husbandry. Assuming a weighted average of 90%, the % participation district wide would not change and the project village wide percent would rise from 5.5% to 6.1%

% HH participating in dryland afforestation	-Share of rural households in district ≈86/714,432 = 0.01% -Share of rural households in 83 project villages overall = 86/36,271 = 0.2%	86 HHs participating in dryland afforestation directly or through replication. Rough estimates above of total rural population of the 4 project districts (714,432 HHs) and of the project villages (36,271 HHs) are used along with the number in the first summary table for primary beneficiaries of dryland afforestation.
Number of: SLM Funds Business plans PPPs Grants	 0 0 0 0	No SLM funds identified in Punjab implementation of SLMP II

Summary Table 3. Punjab Indicators – Set 3 of 3: Outcomes 2 and 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
Number of Provincial Land Use Policies (1 targeted for Punjab)	Land Use Policy with specific requirements not prepared, though Punjab field findings with regard to rangelands suggest such a policy may be needed to prevent ecologically detrimental conversions. Draft Punjab Integrated Sustainable Land Management Provincial Policy (ISLMPP) (which is more like a guidance document without specific requirements) prepared instead in 2017 and 2018, but not followed up upon since then. Draft was provided to Punjab but not adopted. Stakeholders indicate it would need to be updated before any progress on adoption would be possible.	NCU commissioned drafts of ISLMPPs for each province (instead of land use policies), but these have not been adopted and it has been over two years since there was significant activity related to them.
Number of Sectoral Policies that Address SLM Aspects	No known progress	No evidence that this was worked on
Functioning Provincial DCC	There is no DCC at present, though some work is in progress. A PC-4 document is being prepared that, if approved, would "regularize" SLMP II, transforming it from a development project to permanent status. Whether this will be done is said to depend largely on the results of an in-progress evaluation by Punjab P&DD's internal M&E Section. If the results are positive, Punjab P&DD expects to transform the roles of the project M&E	While there are some efforts to regularize the key two persons of the project team (pending internal evaluation results), so that they would become the DCC, there do not appear to be plans to hire a senior level person. Instead, the DCC would be incorporated into an existing section of P&DD and the section head would get the role of DCC head added to his or her main role as section head.

	Officer and Admin and Finance Officer into permanent positions in the DCC. The DCC would be incorporated into the Environment or Agriculture Section of Punjab P&DD and would not have its own funds, but could provide technical input on how to incorporate SLM into use of the annual ADP funds that P&DD directs. Not regularized and no staff. For now, the temporary development project has been extended for 2021 and 2022 in Sindh. No clear action on a permanent DCC for Sindh.	
Number of DLUPs being implemented after being designed with participation of sectoral agencies	-1 DLUP prepared for Bhakkar District and made available to TE team. No evidence that this is being used was obtained. Province appears focused on other planning initiatives instead. -VLUPs: If prepared, not being made use of and not available to villages: Though requested, no VLUPs from Punjab were made available to the TE team. Among 4 village visits in Chakwal, 2 said they did not have a copy of their VLUP and did not know about its use and 2 said they did not know about one. VLUPs were not prepared for Khushab or Bhakkar Districts, the other two districts visited.	*Punjab Special Strategy* and their *Punjab Growth Strategy* appear to be the main focus of P&DD in terms of planning documents. No evidence that P&DD is prioritizing the Bhakkar DLUP prepared by the project or seeing to it that use is made of it. Also, no evidence that other departments are using this DLUP. NCU presentation claims 150 VLUPs across 4 provinces. Latest PIR claims 8 VLUPs prepared for Punjab. VLUPs are said to be a responsibility of the NCU working with the provincial IPs rather than a responsibility of the PCUs. One source indicated Chakwal Forest Department had worked on VLUPs. Feedback from Chakwal villages visited show that the documents, if prepared, are not being made use of; and the villages do not even have a copy.
SLM Info System and DSS Operational and being Used	NOT DONE	-----

Annex 7. KP Indicator Assessment – Summary Version

Note: The full version of the KP Indicator Assessment is provided in Annex 17, which is a part of a set of four such annexes (one for each province) provided in a separate document. Here, we include only the introduction and the summary table section. The other sections, found in the separate document provide village level information for various measures upon which some of the summary tables are based.

Introduction to approach: This assessment is prepared by the TE Team based on: (a) bottom up information on on-the-ground SLM measures as shared by the KP PCU combined with (b) TE Team interviews with seven CBOs across KP's two project districts, including site visits. (c) Interviews with KP district-level project IPs in the two visited districts are also referenced. Findings from the field work are important both for a sort of "spot checking" of the accuracy of data provided by the PCU and, just as importantly, as a form of input for more complex indicator analysis. KP was unable to provide the TE team with village-wise information on project achievements. Instead, for various measures, they provided total achievement and expenditures per district and also a list of villages involved with the measure in each district. Thus, we used information from the villages we did visit (which, together with related calculations, is typically shown in red font), to extrapolate the average achievements of those villages that we did not visit, but were listed by the PCU with regard to achievement of a particular measure. (We typically show these achievements of villages we did not visit in black font, though in a few cases do use red font to show that findings in the field influenced our assessment to be different from what might be guessed based on PCU provided data alone.) We emphasize that there are many "back of the envelope calculations" and "guesstimates" in this document. Its purpose is not to provide accurate estimates for every village, as this would be impossible based on the information we have. Instead, the purpose of this work is to provide a model that allows us to come up with bottom-up justified estimates of total achievements for various SLM measures in KP. The aim is for ballpark estimates. For example, in a certain category, were hundreds of thousands of ha achieved, tens of thousands of hectares, or merely a few hundred? Did tens of thousands of households benefit, thousands, hundreds, or just a few? On this level, we feel that the approach is quite useful.

An example of the more complex indicator analysis that this work facilitates has to do with "area of land improved." "Area of land improved" is a key aspect of the objective level indicator targets of the UNDP-GEF project (i.e. area of agricultural land improved, area of forestland improved, area of rangeland improved, and area of improved sand dune stabilization). To assess such indicators, there is a need not only to understand the areas treated by specific project measures, but also to assess (i) the scale of the surrounding areas of land that might benefit from those measures and also (ii) the extent of replication stimulated by those measures, which then might also be counted as land improved due to the project. Through site visits and interactions in the field with CBOs and district-level IPs, the national consultant was able to determine rough rules of thumb for calculating the wider benefit of land improvement of certain measures, though the stronger work in this regard was mainly carried out in Punjab. For example, rainwater harvesting ponds have the positive quality of recharging the water table over a much wider area than the 5 or so acres a pond might irrigate with a water conveyance system. The wider area benefiting from water table recharging, it was found, might be about 50 acres around the pond. For both scale of surrounding areas improved and extent of replication, the work in this assessment (the full version of which is provided separately as Annex 17) may be taken as an initial effort on which future efforts can improve. Future SLM projects will benefit from more debate and scientific assessment of surrounding area of land improved as well as a more sophisticated approach for assessing replications and whether they are true "replications," stimulated by the project.

The number of households benefitting from various measures is also an important "complex" indicator that benefitted from our findings from fieldwork. Yet, even so, different villages sometimes had quite different inputs on this indicator in relation to a particular measure. Further, to increase clarity for those reviewing the "households benefitting" indicators, we felt it was important to differentiate between those households with strong income benefits, which are typically the same as those who are directly involved with the measure implemented, and others with lesser benefits. We found the "primary beneficiary/ direct beneficiary" households in KP's SLMP II work typically benefit from income increases in the tens to hundreds of thousand PKR per year. "Indirect beneficiaries" typically do not get such a substantial and direct increase in income, but their life becomes better in some way, such as through better access to household or livestock use water or reduced impact of wind erosion on their land.

As for replication, when beneficiaries mentioned specific replication, we counted it towards the achievement of the project. Often, however, the interviewees made general statements about replication of all measures suggesting they had been or will be replicated by the 10 BTTP. As there was not direct attribution to SLMP with such achieved replications and they were not specific to the measure in question, we did not include this kind of replication statement as a part of our calculations of project achievements.

As the reader reviews the bottom-up tables (organized by type of measure) later in this assessment (*provided in the separate document that includes the full versions of these assessments, but not in this summary*), he or she will be able to see that those villages visited are differentiated with red font and sometimes more details/ explanation associated with their entries in the tables. As noted, in many cases, findings from the field are used to develop rough estimates for indicators for all villages in which a certain type of measure was carried out. At other times, data from the PCU, provided on a district, is referenced and then apportioned (once "subtracting out" the village visited) roughly equally among villages not visited.

We emphasize again that this methodology of using field work when possible to extrapolate to other villages is quite rough, as it is unable to consider the variations between villages within a district for those villages not visited and is certainly not able to yield accurate figures on a village by village basis. Yet, we feel that the very rough estimates provided allow us to meet our two-fold goals in preparing this assessment: (1) First, the assessment provides very rough, ballpark estimates to get an idea of progress towards targeted indicators of the UNDP-GEF project. (2) Second, the assessment provides stakeholders that might be carrying out such projects in the future some possible methodologies to use in evaluating indicators that are less straight forward than simply "area treated." If the aim of policy makers, donors, and investors is really to enhance land quality, then work in the field should not be evaluated simply in terms of PKR spent or areas treated, but in terms of the wider benefits to land quality achieved. Evaluation of such indicators, though required by UNDP-GEF project design, was a major shortcoming of the overall SLMP II project. The project as early as the mid-term review was claiming a very high level of progress towards the overall target of 800,000 ha, but this was never substantiated, despite substantial efforts by the TE Team in requesting substantiation.

The first three tables below are summaries of findings related to the project indicators in the UNDP-GEF ProDoc. These summaries, along with similar summaries for the three other provinces, are used to compute total achievements for these indicators as presented in the main body of this report. After the summary tables, in the full version of this assessment provided in a separate document, the reader will find bottom up tables organized by land type (agriculture land, forestland, rangeland, and sand dunes), with one table for each main type of intervention. These tables

show, on a village by village basis, the achievements for different types of SLM interventions. It is the results (or "totals") from these bottom up tables that then become the rows in the first of the three aforementioned summary tables.

Findings show that KP had the second highest achievements of all four provinces in terms of land area improved, achieving in the ballpark of 7,000 ha of land improved, as compared to Punjab's roughly 12,000 ha. While the achievement is far below the overall target of the project (which targets an increase in improved land of around 470,000 ha total or an average of 117,000 ha per province), we feel that overall target is not realistic. Indeed, despite our efforts to unravel the history of the project, we were unable to determine the method used to set the project's overall targets in the first place.

SECTION 1. SYNTHESIS AND OVERALL INDICATOR ACHIEVEMENT FINDINGS

Summary Table 1 – KP Indicators – Set 1 of 3- Indicators by Type of Measure and Type of Land

Measure	No of systems installed	Area of Land Directly Improved	Surrounding Land Area Benefiting	Land Area Directly or Indirectly Improved by Replication	Households/ People Benefiting Directly/ Income Benefits (includes replications)	Households/ People Benefiting Indirectly (includes replications)	Total of GEF Investment and Gov't Investment
1. Rain Water Harvesting Pond (no indication of water conveyance systems associated with ponds)	~~56~~ 42 ponds (reduced due to spot checking /interviews in field finding some not implemented)	0.0 (based on lack of evidence of use of ponds in irrigation)	2,100 acres (849.8 ha) (based on water table recharge of 50 acres per pond)	0.0	42 HHs (estimated based on 1 primary beneficiary HH/ owner per pond)	491 HH benefiting from daily use or livestock use access to pond water	Rs 7,350,000* (USD45,752) Invested by project in 42 ponds (USD1098/pond)
2. Inlet/Outlet Structures	238 inlet/ outlet structures	825.5 ha direct	833 ha indirect	241.5 ha replication (direct and indirect)	272 HH Direct (including replication) [net income benefit of Rs65,000/HH/ year, assuming 1 structure/ HH]	412 HH Indirectly benefiting (including replication)	5,347,200 Rs USD33,347 (at a rate of USD140/ unit)
3. Earthen Bunds	30 earthen bunds	90 ha directly improved	0.0 ha indirectly improved	0.0 replication	150 HH directly benefiting [90,000 Rs/ HH/ yr]	0.0	Rs 6,300,000 =USD39,175 (at USD1,305/ bund)
4. Gated Structures	25 gated structures	500 ha directly improved	1500 ha Indirectly improved (erosion + flood control)	0.0 ha of replication	625 directly benefiting [at	0.0 HHs indirectly benefiting	Rs5,355,500 [USD33,399 at USD1,331 per gate]

					roughly 12,800 Rs/HH/yr]		
5. Spillways	154 spillways	154 ha directly improved	0.0 ha indirectly improved	0.0 ha improved due to replication	134 HHs directly benefiting [with avg income increase of 50,000 Rs/HH/ yr]	0.0 HHs indirectly benefitting	Rs7,007,000 [USD43,698 at USD284/ spillway]
6. Retaining Walls/ Spurs	100 retaining walls	100 ha directly improved	0.0 ha indirectly improved	50 ha due to ½ X replication	150 HHs directly benefiting [with an average income increase of Rs 10,000/HH/yr]	0 HHs indirectly benefiting	Rs5,670,000 [USD35,360 at USD354/ retaining wall]
7. Fruit orchards (with piped irrigation system)	73 units of orchards (@0.2 ha per unit)	14.6 ha directly improved	0.0 ha indirectly improved	9.3 ha directly improved via replication	49 HHs benefiting directly from orchards [wtd avg income increase ≈Rs 213,500/ HH/yr]	0 HHs benefiting indirectly from orchards	Rs 10,220,000 (USD63,616 at USD871 per orchard)
8. Shelterbelts	4 originally but now 2 SBs reduced due to clearcut SB in one district	51 ave. km and 12.75 ha direct with SBs	92.92 ha indirect	0.0 (TBTTP perhaps, but not influenced by project)	13 HHs benefiting directly from shelterbelt	8 HH indirectly benefiting from wind erosion control	Rs2,221,600 (USD13,829, most based on USD78/ ave km)
9. Woodlots ("Energy Plantations")	12 woodlots	259 ha of woodlots	518 ha indirectly benefitting	0 replications stimulated by project	22 HHs [for HH with 10 ha, +150,000/HH/yr]	0	Rs6,615,000 (USD41,176 at USD131/ ha)
10. Nurseries ("Home-based Forest Nurseries")	31 nurseries	0.7 ha directly improved	0 indirectly improved	0 replication	25 HHs benefitting, for the 19 that have just 1 nursery, benefit is +50,000 Rs/year	0 HHs indirectly benefiting	Rs4,500,000 (USD28,011 at USD622/ nursery)
11a. Dry Afforestation – benefit to ag land	---	---	126 ha agricultural land indirectly improved	0 ha improved from replication	---	---	---
Agricultural Land Subtotal	**707 various initiatives**	**1,956.6 ha directly improved**	**3,919.7 ha indirectly improved**	**300.8 ha from replication (direct or indirect improvement)**	**1,482 HHs direct benefit including replication(significant income improvement)**	**911 HHs benefiting indirectly including from replication**	**60,586,300 Rs USD376,743‡**
11b. Dry Afforestation – benefit to forest land and beneficiaries	3 dry afforestation projects (4 originally, but 1 clear cut)	~~193 ha~~ 126 ha directly improved	~~252~~ 126 ha forestland indirectly improved	0	12 HH directly benefiting	22 HH indirectly benefiting	Rs4,746,000 (USD29,542 at USD131/ha)

Forestland Subtotal	**3 dry aff. Sites**	**126 ha**	**126 ha**	**0 ha**	**12 HH directly benefiting**	**22 HH indirectly benefiting**	**Rs4,746,000 (USD29,542 at USD131/ha)**
12. Rangeland Reseeding (with controlled grazing and veterinary support)	2 initiatives	95 ha direct	285 ha indirect via seed dispersal	0	238 HHs directly benefiting	0	Rs1,226,000 (USD7,624 at USD80/ ha)
13. Rangeland Improvement Plans	6 plans	~~12,000 ha~~ 0 ha directly improved	0 ha indirectly improved	0 ha improved via replication	0 HH benefitting directly	0 HH benefitting indirectly	Rs 175,000 [USD 1,088 at USD181/ plan]
Rangeland Subtotal	**8 initiatives**	**95 ha directly improved**	**285 ha indirectly improved**	**0 ha improved via replication**	**238 HHs directly benefiting**	**0 HH benefitting indirectly**	**Rs 1,401,000 (USD8,712)**
14. Kana Plantation	9 sites	145 ha directly benefiting	145 ha indirectly benefiting	0.0 ha	34 HHs directly benefiting	14 HHs indirectly benefiting	Rs1,522,500 (USD9,654 at USD66/ha)
Sand Dune Stablization	**9 sites**	**145 ha directly benefiting**	**145 ha indirectly benefiting**	**0.0 ha**	**34 HHs directly benefiting [wt. avg. income increase Rs21,326/HH/yr]**	**14 HHs indirectly benefiting**	**Rs1,522,500 (USD9,654)**
GRAND TOTALS	**727 initiatives**	**2,322.6 ha directly improved**	**4,475.7 ha indirectly improved**	**300.8 ha improved via replication**	**1,766 HHs directly benefiting**	**947 HHs indirectly benefiting**	**68,255,800 Rs USD424,435‡**

Total Land Improved including indirect benefit to neighboring areas:
Agricultural land: 1,956.6 ha direct + 3,919.7 ha surrounding area + 300.8 ha replication (including direct and surrounding area) = 6,177.1 ha
Forestland: 126 ha direct + 126 ha surrounding area = 252 ha
Rangeland: 95 ha direct + 285 surrounding area = 380 ha
Sand dune stabilization: 145 ha direct + 145 ha surrounding area = 290 ha
Total land are improved: 6,177.1 ha agricultural land + 252 ha forestland + 380 ha rangeland + 290 ha sand dune stabilization = 7,099.1 ha

Total beneficiaries including replication:
Total agricultural land beneficiaries: 1,482 HHs primary beneficiaries (major benefit) + 911 HHs secondary beneficiaries = 2,393 HHs
Total forestland beneficiaries: 12 HHs primary beneficiaries (major benefit) + 22 secondary beneficiaries = 34 HHs
Total rangeland beneficiaries: 238 HHs primary beneficiaries (major benefit) + 0 HHs secondary beneficiaries = 238 HHs
Total sand dune stabilization beneficiaries: 34 HHs primary beneficiaries (major benefit) + 14 HHs secondary beneficiaries = 48 HHs
Grand total beneficiaries: Primary beneficiaries (major benefit) 1,766 HHs + secondary beneficiaries 947 HHs = 2,713 HHs

‡Actual amount in USD should probably be higher, as PKR has depreciated over time and we are using today's exchange rates (Jan. 2021).
*PCU reports Rs9.8 million (or 33% more than our estimate), likely due to their reporting of 14 additional ponds that may have not been implemented.

Summary Table 2. KP Indicators – Set 2 of 3: Other Objective and Outcome 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
% of HH benefiting	% of districts' rural HHs benefitting from SLMP II and replications, including primary and secondary beneficiaries ≈ 2,713 HHs /267,068 HHs = 1.0%	District populations: Based on 2017 census, Lakki Marwat District population was 876,182, of which 786,762 (about 90%) was rural. Based on our four village interviews, household size in rural Lakki Marwat is consistently indicated to be 7 to 8 persons per household. Thus, rural households in Lakki Marwat are estimated to be 786,762 persons/7.5 persons per HH = 104,902 HHs. Based upon the same census, DIK District population was 1,627,132, of which 1,264,901 (or about 78%) was rural. Based on our three village interviews, HH size was consistently reported as 7 to 8 person (average of 7.8). Thus rural households in DIK District are estimated at 1,264,901 persons/ 7.8 persons per HH = 162,167 HHs. Thus, estimated total rural HHs in the two districts are 104,901 HH + 162,167 HH = 267,068 rural HHs across the two project districts in KP.
	% of involved villages' HHs ("back of the envelope"): % of involved villages' HHs*: -Primary beneficiaries (major benefit): 1,766 HH/ 20,121 HHs = 8.8% -Secondary beneficiaries: 947 HH/20,121 HH = 4.7% -Primary and secondary beneficiaries combined: 2,713 HH/ 20,212 HHs = 13.5% (real share may be lower)* *Note: Real proportions of households benefiting may be somewhat lower due to double counting among beneficiaries of different activities. The larger the share of the village that benefits, the more likely significant double counting is. At the same time, estimates do not include livelihood activities supported without a clear land area benefit, such as poultry provision, provision of knna	SLMP II was active in about 57 villages in KP. Because we lack data on the number of households in each village, it is difficult to assess what share of households benefited. As an estimate, we take the average size of village among the seven visited. The household number in the villages visited was reported to us by stakeholders as follows: Lakki Marwat District: Wanda Mir Alan 150 HHs, Dhoda 670 HHs, Abdul Khel 600 HHs, Chunai Masti Khel 250 HHs. DIK District: Gandi Umer Khan/ Mochiwal 150 HHs, Gara Ramzi 150 HHs, and Saeed Abad 500 HHs. The average across the 7 villages is 353 HHs/ village. The rough estimate of total households in the 57 villages in KP Province in which SLMP II carried out activities is then 353HH/ village x 57 villages = 20,121 HHs.

	processing machines (when provided without support for kana plantations), and kitchen gardening.	
% increase in income for direct beneficiaries of major activities	Estimated income increase of primary beneficiaries: Inlet/outlet strcr: 272 HHs: Rs 65,000/HH/yr (est. average) Bund: 150 HHs: Rs 90,000/ HH/yr (est. average) Gated structure: 625 HHs: Rs 12,800/HH/yr (est. average) Spillway: 134 HHs: Rs 50,000/HH/yr (est. average) Retaining wall: 150 HHs: Rs 10,000/HH/yr (est. average) Fruit orchard: 49 HH: Rs 213,500/HH/yr (est. average) Woodlot: 22 HH: Rs 150,000/HH/yr (est. average) Nursery: 25HH: Rs 50,000/HH/yr (est. average) Kana plantation: 34 HH: Rs 21,326/HH/yr (est. average) Weighted average of all: Rs 43,201/HH/yr for 1,461 HHs Note: HH numbers above include estimated replication % increase in household income Rs 43,201/720,000 Rs ≈ 6% increase in income on average for 1,461 primary beneficiary households (very rough "back of the envelope" calculation)	Based on village interviews, we provide the average annual HH income increase for the key activities of: inlet/outlet structure, bunds, gated structures, spillways, retaining wall, fruit orchard, woodlot, forest nursery, and kana planation. (We do not include rainwater harvesting pond, shelterbelt, dry afforestation, and rangeland reseeding, as no information on income benefits was obtained for these.) We then calculate weighted average income increase across the various key activities. We lack data on rural household income in the project areas. One report we saw indicates average rural monthly income in Pakistan was 30,000 Rs in 2016. Given inflation and gradual income rises, we might guess that level is up to a maximum of 60,000 Rs per month or 720,000 Rs/ year. We use the weighted average annual increase in HH income for the nine activity categories given, which is Rs 43,201/HH/yr.
Number of villages	57 villages in which there are on-the-ground interventions	-57 distinct villages in KP PCU indicator listings -16 distinct CBOs in KP CBO listing. Some CBOs may have SLMP II activities in more than one village, though this list seems incomplete considering the number of villages reported to have SLMP II activities in them.
Number of HHs participating in SLM activities	1,766 HHs	We use primary beneficiaries from Summary Table 1. We don't include secondary beneficiaries, as they may be accessing water or benefiting from wind erosion, etc., but not participating directly in SLM initiatives.
Number of farmers/ farm HHs	1,482 HHs	This is based on Summary Table 1's beneficiaries for agricultural land. It only includes primary beneficiaries, as these are seen as

implementing SLM		the only ones directly participating in on-the-ground SLM activities.
% livestock owners in target districts participating	-Estimated 238 HHs participating in activities improving rangeland or benefiting from such activities. -Share of all rural households in district=238/267,068≈0.1% -Share of all rural households in 57 project villages = 238/20,121=1.2%	Number of HHs is based on primary beneficiaries for rangeland activities, which are 238 households. The challenge in assessing this indicator is that we lack information on the number of livestock owners in target districts, or even in project villages. To be conservative, we might assume all rural households own livestock. All HHs in the 57 project villages are estimated as above to be 20,121 HHs. All rural households in the 2 project districts are estimated as above to be 267,068 HHs.
% HH participating in dryland afforestation	-Estimated 12 HHs participating in dryland afforestation -Share of rural households in district ≈12/267,068 = 0.004% -Share of rural households in 57 project villages = 12/20,121 = 0.06%	12 HHs participating in dryland afforestation directly. (No replication of dry afforestation attributed to project, so these are all participants in SLMP-funded dry afforestation.) Rough estimates above of total rural population of the 2 project districts (267,068 HHs) and of the project villages (20,121 HHs) are used along with the number in the first summary table for primary beneficiaries of dryland afforestation (12 HHs).
Number of: SLM Funds Business plans PPPs Grants	 0 0 0 0	No SLM funds identified in KP implementation of SLMP II

Summary Table 3. KP Indicators – Set 3 of 3: Outcomes 2 and 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
Number of Provincial Land Use Policies (1 targeted for KP)	Land Use Policy with specific requirements not prepared. Draft KP Integrated Sustainable Land Management Provincial Policy (ISLMPP) (which is more like a guidance document without specific requirements) prepared instead in 2017 and 2018 and circulated to 13 stakeholders in government and some observers with comments given to the NCU, but not followed up upon since then. Input from consultations suggest that before the proposed policy is forwarded to the provincial cabinet for approval, there would need to be a forum to achieve consensus.	NCU commissioned drafts of ISLMPPs for each province (instead of land use policies), but these have not been adopted and it has been over two years since there was significant activity related to them.

Number of Sectoral Policies that Address SLM Aspects	No known progress	No evidence that this was worked on
Functioning Provincial DCC	There is no KP DCC at present, though some work is in progress to see if "regularization" of SLM within the KP Provincial P&DD can be achieved. Due to financial constraints, there are no plans to hire a high profile person to run a DCC Section with P&DD, but there is a possibility that the DCC would become a sub-section of an existing section, such as the P&DD's Agriculture Section, in which case the Chief of the Section will have an "additional charge" as head of the DCC. Our assessment is that regularization of the DCC is a possibility, but if achieved, the DCC will not have high status to start with. To ensure achievement of the DCC, follow up is needed.	There have been some efforts to "regularize" SLM in the Provincial P&DD by establishment of a DCC as required by the project design, but there is no evidence of DCC establishment and nor of the initiation of related recruiting efforts.
Number of DLUPs being implemented after being designed with participation of sectoral agencies	-1 DLUP prepared for DIK District and made available to TE team. No evidence that this is being used was obtained. DLUP said to be a new concept in Pakistan. -10 VLUPs, all for Lakki Marwat District said to have been prepared, though no evidence was found that these are being used. The TE Team has seen 4 of these VLUPs, though not the other 6, though we asked the project team for all VLUPs. Of the 4 villages visited in Lakki Marwat, 2 said that VLUPs had been prepared for their villages, but that the villages did not have a copy. While VLUPs are not new to Pakistan, these are said to be the first for Lakki Marwat District.	We found no evidence that either the DLUP (which we have seen) or the 10 VLUPs said to have been prepared (4 of which we have seen) are being used or have served any useful purpose since their preparation. Two villages we visited confirmed that VLUPs had been prepared for their villages, but the villagers did not have a copy and did not have any feedback about any positive use of these documents. District level IPs in KP similarly had no feedback about either the DLUP (in the case of DIK) or of the VLUPs (in the case of Lakki Marwat District).
SLM Info System and DSS Operational and being Used	NOT DONE	-----

Annex 8. Balochistan Indicator Assessment – Summary Version

Note: The full version of the Balochistan Indicator Assessment is provided in Annex 18, which is a part of a set of four such annexes (one for each province) provided in a separate document. Here, we include only the introduction and the summary table section. The other sections, found in the separate document, provide village level information for various measures upon which some of the summary tables are based.

Introduction to approach: This assessment is prepared by the TE Team based on (a) bottom up information on on-the-ground SLM measure as shared by the Balochistan PCU combined with (b) TE Team interviews of four CBOs in Balochistan (one with a video field visit) and an interview of one IP in Balochistan. There are significant challenges in utilizing the bottom up data provided by the PCU to determine contribution to overall project targets on "land area improved" and beneficiaries: (1) The Balochistan PCU-provided data does not delineate achievements by village, but instead only by district. It does, however, name the villages in each district for each intervention and this, in addition to our interviews, is the basis of the villages we list in various tables in the full version of this assessment (provided as Annex 18 in a separate document). (2) Second, as our goal is to determine the total land areas improved (per the project indicators), we are challenged by a form of double counting in the bottom up information listed. For example, villages may be listed under both mini-bubbler irrigation and orchards, with certain land area achievement for both, noted at district level. In the end, though, these might include the same pieces of land that have, say, both mini-bubbler irrigation and olive trees, so they should each be counted only once. (3) Lastly, the bottom up data does not provide land areas for all measures and it does not indicate number of beneficiaries benefitting.

In the end, the TE Team decided the best method to come up with a rough estimate of total Balochistan land area improved and beneficiaries benefitting that we could feel confident in would include: (a) disentangling the double counting as much as possible and (b) using very specific findings from our CBO interviews to extrapolate the achievement situation to other villages. For example, in the four Balochistan interviews, the "land area improved achievement" for the whole village for a "water holding pool" intervention was 4 acres, 5 acres, 5 acres, and 7 acres, respectively, so we can see that 5 acres is a typical area of per village improvement for the province overall for such an intervention. For other interventions, we might use the district totals offered by the PCU to estimate an average per involved village. In some of our village interviews, we heard about actual replication that had occurred. We use those findings to estimate replication rates for other villages in the same district. (If no same district information is available, we may extrapolate from interviewed villages in other districts.) We also use information on number of beneficiaries as determined from CBO interviews to estimate beneficiaries in other villages. And, we make an important distinction between primary beneficiaries (who have their land improved and see very significant gains in income) and secondary beneficiaries (who may gain beneficial access to daily use and/or livestock use water closer to their homes than before).

A last point that is important to make in terms of land area improved: For some kind of SLM interventions, land area improvement can extend to a much larger area than directly treated. For example, a rain water harvesting pond may directly irrigate a small number of acres of land (e.g. 3 acres), but its benefits in recharging the water table may benefit a significantly larger area of land (e.g. 50 acres). Unfortunately, in the case of Balochistan, such measures that could get a significantly larger land area benefit per unit cost (e.g. rainwater harvesting pond), although targeted in SLMP II's design, were not implemented. Instead, the main measures are holding pools for pumped water and associated water conserving irrigation. As such, it is more difficult to make the argument that a larger land area than directly treated is benefiting. Of course, water conserving

irrigation leaves more water to irrigate other areas than before, but unless the drip irrigation system is enlarged to cover larger areas, we don't believe those additional areas can be counted as "improved." For example, if previously 1 acre is irrigated without drip irrigation, and later is shifted to drip irrigation which saves, say, 90% of the water, you may then irrigate an additional 0.9 acres (1 acre with drip and 0.9 acres without) as compared to originally irrigating only 1 acre. Yet, we have given 1 acre "credit" for "improved land" already, so cannot expand the achievement further until more drip irrigation equipment is installed. In general, these water conserving methods are positive, but at the same time, the water table in Balochistan is going down and these measures have been used to irrigate (with well water) on bare land, which is less clearly positive if it becomes replicated widely, as is the intention of SLMP II as a "scale up" project.

The first three tables below are summaries of findings related to the project indicators in the UNDP-GEF ProDoc. These summaries, along with similar summaries for the three other provinces, have been used to compute total achievements for these indicators. After the summary tables and in the full assessment provided in a separate document as Annex 18, the reader will find bottom up tables for each land type, showing, on a village by village basis, the achievements for different types of SLM interventions. It is the results (or "totals") from these bottom up tables that then become the rows in the aforementioned summary tables. These bottom-up tables (available in the full version of the assessment, as Annex 18, which is available as a separate document) are divided into subsections according to land type, one for agricultural land, one for forestland, and one for rangeland, with one additional section on "other indicators not covered" to address the indicator on number of villages with SLM measures implemented.

SECTION 1. SYNTHESIS – OVERALL INDICATOR FINDINGS

Summary Table 1 – Balochistan Indicators – Set 1 of 3- Indicators by Type of Measure and Type of Land

Measure	No of systems installed	Area of Land Directly Improved	Surrounding Land Area Benefiting	Land Area Directly or Indirectly Improved by Replication	Households Benefiting Directly/ (Income Benefits)	Households Benefiting Indirectly (Access to water for HH or livestock use)	Project Investment (GEF and Government combined)
1. Drip Irrigation – Pumped Water Holding Pool – low delta crops or orchards	25 systems	126 acres	0.0	≈173 acres	105 HHs (replication 130 HHs) 787,000/HH/yr avg	Level 2‡: 379 HHs + replication 495	Project investment 400,000 Rs/ system (if in Jan 2018 USD3,560) => USD89,760
2. Other water conserving irrigation and low delta crops (but no water holding pool)	18	54 acres	0.0	49 acres	19 HHs (760,000/ HH/ yr) 17 HHs replication	0.0	Pool is major cost so assume ½ cost of above USD1,780=> USD32,040

3. Contour trenches, spurs, and eyebrows	3	16 acres	NA	NA	3 HHs	NA	2 villages, assume again USD 1,780 each=>3,560
4. Nurseries	23 (14 fruit + 9 forest)	---	---	Note: Each nursery has 10,000 plants roughly and that can populate 25 ha of land, so total land potentially improved is 25 ha x 23 = 575 ha per year, but this is not yet achieved	12 HH not already counted	No one confirmed to be benefitting yet, but eventually possibility of 3rd level benefit 25% of village HHs (663 HHs)‡‡	Overlaps with costs of rows 1 and 2 above, mostly (interventions done as "set" of investments), so USD0.0 additional
5a. Dry Afforestation	---	---	0.8 ha	----	---	---	---
Agricultural Land Subtotal	**---**	**196 acres (79.3 ha)**	**0.8 ha**	**222 acres (90 ha)**	**139 HHs; (avg 783,000 Rs/ HH/ yr)* +147 replication HHs**	**Level 2: 379 HHs + replication 495 HHs**	**USD125,360**
5b. Dry Afforestation	1	2 acres (0.8 ha)	0.8 ha	NA	1 HH	NA	USD1,780
Forestland Subtotal	**---**	**2 acres (0.8 ha)**	**0.8 ha**	**---**	**1 HH**	NA	**USD1,780**
6. Rotational grazing	2	10 ha	NA	NA	2 HH	NA	USD500
Rangeland Subtotal	**---**	**10 ha**	**---**	**---**	**2 HH**	**---**	**USD500**
GRAND TOTALS	--	**89.8 ha**	**1.6 ha**	**90 ha**	142 HHs (+147 HH replication)	379 HHs (+495 HH replication)	**USD127,640**

Total Land Improved including replication:
Agricultural Land: 79.3 ha direct + 0.8 indirect + 90 ha replication = 170.1 ha
Forest Land: 0.8 ha direct + 0.8 ha indirect = 1.6 ha
Rangeland: 10 ha (all direct)
Total land improved: 90.1 ha direct + 1.6 ha indirect + 90 ha replication = 181.7 ha in total improved
Total beneficiaries including replication:
Primary beneficiaries: 142 HH direct + 147 HH replication = 289 HH of primary beneficiaries (their land and income improved substantially)
Secondary beneficiaries: 379 HH direct + 495 HH replication = 874 HH of secondary beneficiaries (better access to daily use/ livestock water)
Total beneficiaries both primary and secondary: 521 HH direct + 642 HH replication = 1,163 HH primary & secondary, both direct & replicated

††Level 2: Indirectly benefiting by having access to daily use/livestock use water from nearby pumped water storage pools

‡‡Level 3: We are not including in our total beneficiaries EOP (end of project) those who might someday buy saplings from nursery at discount price, as we did not get confirmation this is happening yet. Yet, we might envision that 25% of the HHs in villages with nurseries might someday take advantage of this opportunity.
*This average is over those initiative for which we have income improvement estimates and excludes (a) contour trenches, spurs, eyebrows; (b) nurseries; and (c) dryland afforestation.

Summary Table 2. Balochistan Indicators – Set 2 of 3: Other Objective and Outcome 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
% of HH benefiting	% of district rural HHs benefiting directly or indirectly: 0.5%.	Based on 2017, population of 4 districts with interventions is: 736,481 (Pishin)+266,461 (Mastung)+342,814 (Qila Saifullah)+ 574,292 (Qila Lasbella)=1,920,048 x 0.86 = 1,651,241 rural population in 4 districts. Assuming 8 persons per rural household, then rural HHs in 4 districts is 1,651,241/8 = 206,405 HHs. Then, 1,063/206,405=0.5% of rural population across the 4 districts benefitting. [Note: A denominator for total project village HHs is based on average HHs per interviewed village (175+800+930/5+375) HHs/village x 37 villages = 384x37 = 14,208 HHs. This is used in the main text.]
	% of involved villages' HHs: Tier 1 benefit (income): 0.1 – 9.3% HHs (w/replictn) Tier 2 benefit (water): 13-39% HHs (w/ replictn) Tier 3 benefit (nursery in my village): was not confirmed to have occurred yet, perhaps someday 25% HHs	Based on 4 village interviews: Tier 1 direct: % of HHs in village that benefit from substantial income increases direct from project are 0.1-0.2%, 1%, 2%, and 4.2%, respectively. Tier 1 direct + replication: 0.1-0.2%, 1%, 6%, 9.3% Tier 2 (water access) direct: NA, NA, 13%, 12.5% Tier 2 direct + replication: NA, NA, 39%, 31.5% Indirect tier 3: 25%
% increase in HH income for major beneficiaries	437,500 – 1.3 M Rs/ HH/ yr: Mode 513,000 Rs/ HH/ year =USD3,195/HH/ yr. This could represent a doubling in rural HH income (100% increase)	Based on 4 village interviews: 437,500 Rs/ HH/yr, 450,000 Rs/ HH/ yr, 575,000 Rs/HH/ yr, 1.3 M Rs/ HH/ yr, respectively, were the increased in major beneficiaries' incomes
Number of villages	26 to 37 villages in which there are on-the-ground interventions	-37 distinct villages in Balochistan PCU indicator listings -26 CBOs on the Balochistan CBO contact list provided -28 CBOs on the Balochistan progress toward CBO target listing

Number of HHs participating in SLM activities	142 HHs direct + 147 HHs replication = 289 HHs	We use primary beneficiaries from Table 1. We don't include secondary/ Tier 2 as they are accessing water but not necessarily participating in SLM initiatives
Number of farmers/ farm HHs implementing SLM	140 HHs + 147 HHs replication = 287 HHs	Based on Table 1 – only includes primary beneficiaries as they are seen as the only ones directly participating in on-the-ground SLM activities
% livestock owners in target districts participating	0.001% (only 2 HHs across 4 districts)	From PCU bottom-up data, only 10 ha has taken up rotational grazing. We assumed 2 HHs, which is a very small share of all rural households across the 4 districts ≈2/206,405. So, 0.001%
% HH participating in dryland afforestation	0.0005% (only 1 HH across 4 districts) Or 1% (if only across the specific village and village has 100 HHs) Note: We include dryland afforestation participants in the farmer category as well, as this is done on agricultural land.	From PCU bottom-up data only 0.8 ha of dry afforestation. We assume just one family. Very small share of all families in districts or even in village. Indicator does not confirm whether it is over the village or over the districts, however. If over the village assume 100 HHs, so 1%.
Number of: SLM Funds Business plans PPPs Grants	 0 0 0 0	No info on funds in Balochistan confirmed from interviews.

Summary Table 3. Balochistan Indicators – Set 3 of 3: Outcome 2 and 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
Number of Provincial Land Use Policies	Draft prepared, but not adopted and now almost forgotten about	Based on consultations. Project government funds have supported updating of Balochistan Forestry Policy, which is main policy focus of PCU now
Number of Sectoral Policies that Address SLM Aspects	No known progress	No evidence that this was worked on
Functioning Provincial DCCs	Not regularized and no staff, but process for regularization is active and there is a possibility of success.	Request has been submitted to Secretary of P&D and sources report verbal agreement, but this will take time to process. Chief Minister of Province has recently been briefed and agreed verbally to extension of project.

Number of DLUPs being implemented after being designed with participation of sectoral agencies	-3 DLUPs claimed, 2 confirmed. Said to be very useful for briefing new officers and even used in planning 10 Billion Tree Tsunami initiatives -VLUPs: If prepared, do not appear to be being used by villages and most do not even have one, so unclear if done.	-DLUPs said to be prepared for Mastung, Kech, and Lasbella. TE team received positive feedback that the first two have been used for briefing new forestry officers -VLUPs for seven villages reviewed by TE team -4 village interviews suggest that either they do not have VLUPs or that they are not being used as follows: *village 1: map but no plan *village 2: yes have one, but not using *village 3: chart with activities, did GIS map but "they" did not leave it with us *village 4: no plan, some ideas for activities discussed verbally and in writing
SLM Info System and DSS Operational and Being Used	NOT DONE	-----

Annex 9. Sindh Indicator Assessment – Summary Version

Note: The full version of the Sindh Indicator Assessment is provided in Annex 19, which is a part of a set of four such annexes (one for each province) provided in a separate document. Here, we include only the introduction and the summary table section. The other sections, found in the separate document provide village level information for various measures upon which some of the summary tables are based.

Introduction to approach: This assessment is prepared by the TE Team based on (a) bottom up information on on-the-ground SLM measures as shared by the Sindh PCU combined with (b) TE Team interviews of two CBOs in Sindh and an interview of one IP in Sindh. There are some challenges in utilizing the bottom up data provided by the PCU to determine contribution to overall project targets on "land area improved" and beneficiaries. The TE Team has used its best judgement to resolve these. In particular, in some instances, there may be an issue of double counting of land area improved. This would be the case, for example, if a solar system and sprinkler irrigation system are introduced in the same village, because it would be unclear whether these two initiatives address different areas or the same area of land.

As for beneficiaries, there is also a challenge in providing an accurate picture of the situation, as the level of benefit can vary greatly depending on the type of beneficiary. Thus, the TE Team believes it is important to distinguish between beneficiaries acquiring major benefits from initiatives (such as by newly irrigated bare land) and those acquiring secondary level benefits, such as more convenient access to household use or livestock use water. The TE Team did not get information on the number of secondary level beneficiaries from interviews. We are not sure whether the pumped water holding pools associated with the two villages interviewed provide water access to a larger beneficiary group, but have assumed they do and estimated the total beneficiaries for each pool as 15 HHs and 30 HHs, respectively, based on numbers of such beneficiaries we learned about from Balochistan interviews. The PCU-provided data on beneficiaries does not distinguish between the two aforementioned types. We believe the large number of beneficiaries indicated by that data for rainwater harvesting ponds focuses on the secondary level of beneficiary ("access to daily use and livestock use water" beneficiary), while the small number of beneficiaries included in the PCU data for the solar systems, many of which include pumped water holding pools, do not. We have thus added our estimates for secondary beneficiaries to the pumped water holding pool initiatives, though are not entirely sure whether these pools are providing access to secondary beneficiaries. In addition, in Sindh, there were 66 "kitchen garden" livelihood activities carried out by/for women. These kitchen gardens are said to be about 12 ft. by 10 ft., or 120 square feet each. The project is said to have provided seeds and training to the women. While these gardens provided a positive benefit to the households, both the investment by the project and the benefit of the households are much less than in the case of the major initiatives, such as rainwater harvesting ponds and solar irrigation systems. Thus, in reporting beneficiaries, we provide the kitchen garden group as a third beneficiary category to give management a better view of the situation. In sum, there are three overall categories of beneficiaries: (1) Major direct beneficiaries whose land productivity is substantially improved by irrigation systems associated with rainwater harvesting ponds or solar pump systems (sometimes with support for new dug well) and/or sprinkler irrigation. (2) Minor direct beneficiaries who develop a 12 ft. by 10 ft. kitchen garden with seed and training support from the project. (3) Indirect beneficiaries who benefit from access to water for household or livestock use from rainwater harvesting ponds or pumped water holding pools used by others for irrigation.

A few introductory points on the nature and scale of findings and estimates: The two Sindh interviews provided rough correlation with PCU-reported land area improved and reported beneficiaries. The first interview indicated 2 ha improved in the village and one HH as main

beneficiary. The other indicated 5 ha improved and 5 HHs as the main beneficiaries. In terms of secondary beneficiaries (those that benefit from access to daily use and livestock use water), the rainwater harvesting ponds as indicated by the PCU had a much higher level of secondary beneficiaries than what we had been found for the water holding pools in Balochistan, with up to 85 per pond reported (instead of, say 15-30), but this may be because their size is significantly larger. For the pumped water holding pools, we estimated 15 HHs benefiting from water access per pool, though, as noted, did not confirm the existence of such secondary beneficiaries in Sindh interviews. Because the interviews did not reveal any evidence of replication and Sindh initiatives have started relatively late in the project, we do not include any replication in our estimates of progress toward indicator targets for Sindh. Finally, for the issue of total land area improved, for rainwater harvesting ponds, in addition to the area reported by the PCU to be improved, which is 3 to 5 acres per pond and is presumably an increase in irrigated land, we have added under "surrounding area benefitting" 49.5 acres per pond. This reflects findings from the TE National Consultant's consultations/ field trip in Punjab and is an estimate of the area over which the rainwater harvesting ponds are estimated to recharge the water table. As the "pumped water holding pools" do not provide this kind of water table recharging benefit, we indicate the "surrounding area benefitting" as zero in such cases. Thus, these "pumped water holding pool" initiatives contribute a much lower area to "area of agricultural land improved" than do the rainwater harvesting ponds.

The first three tables below are summaries of findings related to the project indicators in the UNDP-GEF ProDoc. These summaries, along with similar summaries for the three other provinces, have been used to compute total achievements for these indicators. After the summary tables in the full version of this assessment, Annex 19, which is provided in a separate document,, the reader will find bottom up tables for each land type, showing, on a village by village basis, the achievements for different types of SLM interventions. It is the results (or "totals") from these bottom up tables that then become the rows in the aforementioned summary tables. Findings show that Sindh has only carried out agricultural land related activities and no forestland or rangeland related activities.

SECTION 1. SYNTHESIS AND OVERALL INDICATOR ACHIEVEMENT FINDINGS

Summary Table 1 – Sindh Indicators – Set 1 of 3- Indicators by Type of Measure and Type of Land

Measure	No of systems installed	Area of Land Directly Improved	Surrounding Land Area Benefiting	Land Area Directly or Indirectly Improved by Replication	Households/ People Benefiting Directly/ Income Benefits	Households/ People Benefiting Indirectly (access to household or livestock use water)	Total of GEF Investment and Gov't Investment
1. Rain Water Harvesting Pond	6 ponds	24 acres = 9.7 ha	297 acres = 120 ha	0.0	6 HHs (1.1 M Rs/HH/ year) no replications known)	305 HHs (1,562 persons)	Project investment 400,000 Rs/ pond at present (USD2,496); total spent: 2.253 M Rs or USD14,059‡

2. Solar PV Pump Initiatives (likely all with pumped water holding pool)	12 systems	34 acres = 13.8 ha	0.0	0.0	30 HHs (296,667 Rs/HH/yr average)	256 HHs	Based on total, average per system is Rs 537,708, (USD3,355); total of Rs 6,542,490 or USD40,265‡
3. Sprinkler Irrigation (but no Solar Pump indicated)	2 systems	8 acres = 3.2 ha	0.0	0.0	8 HHs (240,000 Rs/ HH/ yr average)	0.0	Avg. Rs 504,550 (USD3,149) per system; total Rs 1,009,100 (USD6,297)‡
4. Kitchen gardens (each 12 ft x 10 ft)	66 gardens	7,960 sq ft (0.18 acre = 0.07 hectare)	0.0	0.0	66 HHs (but benefit low-> so count as "minor beneficiaries")	0.0	Avg. 8,259 Rs/ garden (USD52); total of Rs 545,100 (USD3,402)‡
Agricultural Land Subtotal	**20 major 66 minor**	**26.8 ha**	**120 ha**	**0.0**	**44 major 66 minor**	**561 HHs**	**10,349,690 Rs USD64,585‡**
Forestland Subtotal	**---**	**0.0**	**---**	**---**	**0.0**	**---**	**0.0**
Rangeland Subtotal	**---**	**0.0**	**---**	**---**	**0.0**	**---**	**0.0**
GRAND TOTALS	20 major 66 minor	**26.8 ha**	**120 ha**	**0.0**	**44 major 66 minor**	**561 HHs**	**10,349,690 Rs USD64,585‡**

Total Land Improved including indirect benefit to neighboring areas:
26.8 ha direct + 120 ha indirect = 146.8 ha (all agricultural)
Total beneficiaries including replication:
Primary beneficiaries – major benefit: 44 HHs (irrigation from rainwater harvesting ponds; irrigation from solar pumps and sprinkle irrigation)
Primary beneficiaries – minor benefit: 66 HHs (provision of seeds/ training for 10 ft x 12 ft "kitchen gardens")
Secondary beneficiaries: 561 HHs (household use water and livestock water from rainwater harvesting ponds and pumped water holding pools)
Total beneficiaries both primary and secondary: 44 HHs major + 66 HHs minor + 561 HHs secondary = 671 HHs

‡Actual amount in USD should probably be higher, as PKR has depreciated over time and we are using today's exchange rates (Jan. 2021). As Sindh activities got a slow start, however, perhaps the estimate is not too far off.

Summary Table 2. Sindh Indicators – Set 2 of 3: Other Objective and Outcome 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
% of HH benefiting	% of district rural HHs, including primary and secondary beneficiaries, ≈0.4%	District population: 1.65 M x 85% rural = 1.40 M. Assuming 8 persons per HH (the average of what we found from our two village interviews), the district's number of rural households is

	% of involved villages' HHs: Tier 1a benefit (income-major): 0.2 – 3.1% HHs Tier 1b benefit (food/income- minor): 0.4 – 7.5% HHs Tier 2 benefit (nearby water access): 3-53.5%	estimated at 175,000. % district rural HHs benefiting: 671/175,000 M = 0.4%. Since there are 16 villages and an average of 329.5 HHs/village (=[500+159]/2), we estimate total households in project villages as 5,272 HHs, which is used in the main text for indicator assessment. Tier 1a direct -- % of HHs in village that benefit from substantial income increases direct from project, based on 2 village interviews: 0.2% and 3.1%, respectively Tier 1b direct -- % of HHs in village benefiting in more minor way from kitchen gardens based on PCU data for participating HHs and village interviews for village size: 2 to 12 HHs per participating village and population of 159-500 HHs: 0.4%-7.5% Tier 2 (water access) direct: based on estimates for interviewed villages (solar only), PCU reported (rainwater ponds, though populations not known, so using high and low range from interviews): 3% (solar, first interviewed village), 18.9% (solar second interviewed village), 53-85 HH in population of 159-500 HHs or 10.6 – 53.5% (rainwater harvesting ponds) No replication reported in interviews, so none assumed in these estimates.
% increase income for direct beneficiaries of major activities	175,000 – 600,000 Rs/HH/yr. Weighted average of Rs284,737/HH/yr. This might represent a 50% or more increase in rural HH income for these select HHs.	Based on 2 village interviews: 175,000 Rs/HH/yr and 600,000 Rs/ HH/yr, respectively. Weighted averages are reported in summary table 1, so we take the weighted average of those as [(296,667 x 30) + (240,000 x 8)]/ 38 = 284,747
Number of villages	14 to 16 villages in which there are on-the-ground interventions	-16 distinct villages in Sindh PCU indicator listings -14 distinct villages in Sindh scheme-wise CBO listings
Number of HHs participating in SLM activities	44 HHs primary major + 66 HHs primary minor = 110 HHs	We use primary beneficiaries from Table 1. We don't include secondary/ Tier 2 as they are accessing water but not necessarily participating in SLM initiatives
Number of farmers/ farm HHs implementing SLM	44 HHs primary major + 66 HHs primary minor = 110 HHs	Based on Table 1 – only includes primary beneficiaries as they are seen as the only ones directly participating in on-the-ground SLM activities

% livestock owners in target districts participating	0%	No rangeland activities, so no direct participation of livestock owners in SLM activities (though they do benefit from water access)
% HH participating in dryland afforestation	0%	No forestland or dryland afforestation activities
Number of: SLM Funds Business plans PPPs Grants	2 "village SLM funds," each of 300,000 Rs (USD1,862) but not really focused on SLM activities 0 business plans 0 PPPs 0 grants	Two funds were set up, one in Malji Jo Wandi, Doongi and the other in Naggarh. The project provided 300,000 Rs to each fund. The funds will provide loan to farmers before the planting season – when season is over, they return the money. Loans expected to be mainly for seeds and soil preparation

Summary Table 3. Sindh Indicators – Set 3 of 3: Outcome 2 and 3 Indicators and Explanation

Indicator	Value at EOP	Explanation
Number of Provincial Land Use Policies	Sindh ISLMPP draft prepared, but not adopted.	Little feedback on this topic was gathered at provincial level. NCU commissioned drafts of ISLMPPs for each province (instead of land use policies), but these have not been adopted and it has been over two years since there was significant activity related to them.
Number of Sectoral Policies that Address SLM Aspects	No known progress	No evidence that this was worked on
Functioning Provincial DCC	Not regularized and no staff. For now, the temporary development project has been extended for 2021 and 2022 in Sindh. No clear action on a permanent DCC for Sindh.	Because Sindh has not spent its roughly USD 2 M of committed provincial funds, it has revised its PC-1 to spend these funds on SLMP in 2021 and 2022, during which time SLMP will remain a temporary development project. After that, the regularization of the DCC might be taken up.
Number of DLUPs being implemented after being designed with participation of sectoral agencies	-2 DLUPs claimed. NCU unable to provide to TE Team -VLUPs: 55 claimed, NCU only able to provide 4 to TE Team. Villages interviewed appear to have either no VLUP on hand or	-DLUPs said to be prepared for Tharparkar and Sandhar and shared with government. TE team has not seen them, though requested all DLUPs from NCU.

	only parts of one. Sindh said to intend to prepare VLUPs for additional SLM villages for 2021 and 2022 provincial-supported activities, suggesting positive perception of the tool	-TE team requested all VLUPs from NCU, but has just seen 4 for Sindh: PCU claims 55 VLUPs: 30 for Tharparkar, 20 for Umarkot, 5 for Sandhar. -2 village interviews suggest that either they do not have VLUPs or that they are not being used as follows: *village 1: have chart and map, but no full plan *village 2: no VLUP in village office, don't know anything about this
SLM Info System and DSS Operational and being Used	NOT DONE	-----

Annex 10. Rating Scales

(Based on Guidance for TE of UNDP-GEF Projects)

Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution
6: Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives in terms of relevance, effectiveness, or efficiency
5: Satisfactory (S): There were only minor shortcomings
4: Moderately Satisfactory (MS): There were moderate shortcomings
3. Moderately Unsatisfactory (MU): The project had significant shortcomings
2. Unsatisfactory (U): There were major shortcomings in the achievement of project objectives in terms of relevance, effectiveness, or efficiency
1. Highly Unsatisfactory (HU): The project had severe shortcomings

Sustainability
4. Likely (L): negligible risks to sustainability
3. Moderately Likely (ML): moderate risks
2. Moderately Unlikely (MU): significant risks
1. Unlikely (U): severe risks

Relevance
2. Relevant (R)
1. Not relevant (NR)

Annex 11. Documents Reviewed

Key Docs
1. SLMP II CER
2. SLMP II ProDoc
3. SLMP Mid-Term Review Report
4. SLMP PIRs from 2016, 2017, 2018, 2019, and 2020

PIF Phase (from GEF website)
5. PIF
6. GEF Review Sheets (two versions)
7. STAP Review

Sourced from Online Search
8. Project Brochure
9. "Sustainable Land Management to Combat Desertification in Pakistan" by Zahid HUSSAIN and Muhammad IRFAN in *Journal of Arid Land Studies*, 22-1, 127 -129 (2012)

Provided by NCU in October 2020
10. Brochure (2018) in English and Urdu
11. Presentation on SLMP II Project
12. Success Stories Document
13. Thal Assessment of Vegetation Cover
14. Sindh Desert Plants
15. National Action Program (NAP) by SLMP
16. Indigenous Technical Knowledge KP and Punjab by SLMP
17. Field-based Training Manual by SLMP
18. Best Practices for SLM in KP and Punjab
19. Advocacy and Communications Strategy SLMP II

Provided by UNDP CO Nov 11, 2020
20. Annexes 15a, 15b, 16, 17 to MTR Report
21. Status of Follow up to MTR Recommendations
22. 2017 Project Audit, Letter accompanying 2018 Project Audit, 2019 Project Audit
23. CDRs by Outcome for 2015, 2016, 2017, 2018, 2019, and 2020 (to date as of early November)
24. Country Program Document (UN in Pakistan) 2018 – 2022
25. Pakistan Common Country Program Action Plan for UNDP, UNFPA and UNICEF (2013-2017)
26. LD Tracking Tool for project at project start
27. LPAC Meeting Minutes – September 2013
28. PC-1 (Government version of project document) for SLMP II)
29. 2020 Budget Revisions: August and October

NCU Provided Nov 13, 2020
30. Annual Progress Reports (APRs) 2016, 2017, 2018, and 2019
31. PSC Meeting Minutes: Meetings 1, 2, 3, 4, 5, 6, and 7
32. Annual Work Plans: 2015, 2016, 2017, 2018, 2019, and 2020
33. Quarterly Financial Reports: Q4 2015, Q1 Q2 Q3 and Q4 for 2016, 2017, 2018, and 2019 and Q1, Q2, and Q3 for 2020
34. Project Organogram
35. Project Staff List (*also, updated version provided in December*)

Documents Provided during "Mission" by Project Team
36. Presentation by NPC to TE Team
37. SLMP II PC-1
38. KP 2018 SLMP II Progress Report
39. KP 2019 SLMP II Progress Report
40. KP 2020 SLMP II Impact Report
41. ISLMPPs for each of the 4 provinces and policy briefing for KP
42. Initial set of DLUPs (2) and VLUPs (16) and Guidelines for DLUPs and VLUPs
43. RFP for DSS
44. MoCC PC-4 for SLM Regularization
45. Gender Analysis Report
46. Balochistan Provincial PC-1 for SLMP II
47. Sindh draft letter from Chairman PP&DD to Chief Minister re SLMP II

Documents Provided during "Mission" by UNDP
48. Implementation Stage Quality Assurance Reports 2016, 2017, and 2019
49. UNDP CO Nov. 2020 Field Monitoring Report for Site Visit of SLMP II

Documents Provided by Others or Sourced Online
50. SLMP I Implementation Review
51. SLMP II Terminal Evaluation

Annex 12. Evaluation Consultant Agreement Form

UNEG Code of Conduct for Evaluators/ Midterm Review Consultants

Evaluators/Consultants:
1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

International Terminal Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:
Name of Consultant: Eugenia Katsigris
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.
Signed at ___Dallas, Texas, USA__ *(Place)* on _____February 2, 2021_____ *(Date)*
Signature: __Eugenia Katsigris (*electronic signature*)_____

National Terminal Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System:
Name of Consultant: Muhammad Ibrahim Khan
I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.
Signed at *Islamabad, Pakistan (Place)* on February 7, 2021 (*Date)*

Signature: Muhammad Ibrahim Khan__ (*electronic signature)*_____

Annex 13. TE Report Clearance Form

Annex VIII: Evaluation Report Clearance Form

(to be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document)

Evaluation Report Reviewed and Cleared By:

UNDP Country Office

Name: Sabeeh RBM Analyst & Head, Management Support Unit,UNDP

Signature: Sabeeh Date: 31st March 2021

UNDP-GEF Regional Technical Advisor

Name: *Tashi Dorji*

Signature: Date: *31st March 2021*