## **Disbursement-linked Indicators**

Disbursement	Total	As % of	DLI Baseline	Prior results		Indicat	tive timeline for DLI achiev	vement	
linked indicator (DLI)	financing allocated (US\$ m)	total financing amount			2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 (Year 5)
DLI 1 - Improving access to quality farm inputs			No E-voucher system in place.	Department of Agriculture (DoAg) has extended the coverage of E-vouchers providing subsidies for agricultural inputs to at least 25,000 farmers with less than 5 ha of farm land in FY17.	DoAg has extended the coverage of E-vouchers providing subsidies for agricultural inputs to at least 50,000 farmers with less than 5 ha of farm land in FY18.	DoAg has extended the coverage of E-vouchers providing subsidies for agricultural inputs to at least 100,000 farmers with less than 5 ha of farm land in FY19.	DoAg has extended the coverage of E-vouchers providing subsidies for agricultural inputs to at least 150,000 farmers with less than 5 ha of farm land in FY20.	DoAg has extended the coverage of E-vouchers providing subsidies for agricultural inputs to at least 200,000 farmers with less than 5 ha of farm land in FY21.	
Allocated amount (US\$ m):	16.00	5%		1.00	2.00	3.00	4.50	5.50	
DLI 2 - Revitalizing provincial crop and livestock research and extension systems			0.1% of AgGDP allocated to research in FY16/17 of which 4% allocated to competitive research grants.			(a) Punjab's Cabinet has approved and notified in the Gazette a new Agriculture and Livestock Research and Extension Policy (1.00) (b) Punjab's Assembly has amended (as notified in the Gazette) the Punjab Agricultural Research Board Act (1997), to reconstitute the Board with a majority of professionals from related fields in the private sector, and to revise its mandate in line with the Review Team Report (1.00) (c) (i) Punjab's Assembly has approved aggregate budgetary allocations for agriculture and/or livestock research for	(i) Punjab's Assembly has approved aggregate budgetary allocations for	(i) Punjab's Assembly has approved aggregate budgetary allocations for	(i) Punjab's Assembly has approved aggregate budgetary allocations for

Disbursement	Total	As % of	DLI Baseline	Prior results		Indicat	ive timeline for DLI achiev	vement	
linked indicator (DLI)	financing allocated (US\$ m)	total financing amount			2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 (Year 5)
						FY19 equivalent to 0.2% of Punjab's AgGDP, of which 8% has been channeled through competitive research grants, including to the private sector; and (ii) DoAg. and DoLⅅ have spent at least 60% of the FY19 allocated budgetary resources (5.00).	agriculture and/or livestock research for FY20 equivalent to 0.25% of Punjab's AgGDP, of which 12% has been channeled through competitive research grants, including to the private sector; and (ii) DoAg. and DoLⅅ have spent at least 70% of the FY20 allocated	agriculture and/or livestock research for FY21 equivalent to 0.3% of Punjab's AgGDP, of which 16% has been channeled through competitive research grants, including to the private sector; and (ii) DoAg. and DoLⅅ have spent at least 80% of the FY21 allocated	agriculture and/or livestock research for FY22 equivalent to 0.4% of Punjab's AgGDP, of which 20% has been channeled through competitive research grants, including to the private sector; and (ii) DoAg. and DoLⅅ have spent at least 80% of the FY22 allocated
Allocated	23.00	8%				7.00	resources.	resources. 4.00	resources.
amount (US\$ m):	23.00	870				7.00	4.00	4.00	8.00
DLI 3 (a) - Improving livestock health			Preventive to curative ratio 65:35 in FY17 under the same head of account in the budget.		(a) DoLⅅ has established in its recurrent budget separate heads of account for the allocation of budgetary resources to preventive and curative animal healthcare; and (b) DoLⅅ's budgetary allocations for FY19 for preventive vs. curative animal healthcare have achieved a 31 ratio.		DoLⅅ's budgetary allocations for FY21 for preventive vs. curative animal healthcare have achieved a 4:1 ratio.		DoLⅅ's budgetary allocations for FY23 for preventive vs. curative animal healthcare have achieved a 9:1 ratio.
Allocated amount (US\$ m):	15.00	5%			5.00		5.00		5.00
DLI 3 (b) - Improving livestock breeding			7,000 animals registered in progeny testing program of Sahiwal cow, Neeli Ravi buffalo, and Cholistani cow.		DoLⅅ has registered at least 12,000 animals in its progeny testing program for Sahiwal cow, Nili-Ravi buffalo, and Cholistani cow.		DoLⅅ has registered at least 22,000 animals in its progeny testing program for Sahiwal cow, Nili-Ravi buffalo, and Cholistani cow.		DoLⅅ has registered at least 30,000 animals in its progeny testing program for Sahiwal cow, Nili-Ravi buffalo, and Cholistani cow.
Allocated amount (US\$ m):	15	5%			3.00		5.00		7.00

Disbursement	Total	As % of	DLI Baseline	Prior results		Indicat	ive timeline for DLI achiev	vement	
linked indicator (DLI)	financing allocated (US\$ m)	total financing amount			2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 (Year 5)
DLI4 (a) – Modernizing the wheat marketing system			GoPunjab procures an annual quantity of approximately 4 million MT of wheat at US\$310/MT.		Punjab's Cabinet has approved the PFD's plan for the governmental withdrawal from the wheat market, and the gradual reduction of strategic wheat reserves.	Punjab has reduced the procurement of wheat in FY19 to not more than 3 million tons.	Punjab has reduced the procurement of wheat in FY20 to not more than 2 million tons.	Punjab has: (a) fully phased out from the wheat market; (b) reduced its strategic wheat reserves to not more than 2 million tons; and (c) developed silos for bulk storage of wheat for up to 2 million tons, under PPP arrangements.	
Allocated amount (US\$ m):	70.25	23%			4.25	10.00	10.00	46.00	
DLI4 (b) - Transitioning to high-value agriculture			Punjab Agriculture Policy under preparation  3.5% of agriculture Annual Development Plan (ADP) allocated for FY17 to high-value agriculture (HVA).	Punjab's Assembly has allocated at least 6% of the amounts budgeted for DoAg. under the ADP for FY18 towards HVA.	(a) Punjab's Cabinet has approved and notified in the Gazette an Agricultural Policy (1.00); and (b) (i) Punjab's Assembly has allocated at least 8% of the amounts budgeted for DoAg. under the ADP for FY19, towards HVA; and (ii) DoAg. has spent at least 60% of the FY18 allocated budgetary resources. (5.00)	(i) Punjab's Assembly has allocated at least 10% of the amount budgeted for DoAg. under the ADP for FY20 towards HVA; and (ii) DoAg. has spent at least 70% of the FY19 allocated budgetary resources.	(i) Punjab's Assembly has allocated at least 12% of the amount budgeted for DoAg. under the ADP for FY21 towards HVA; and (ii) DoAg. has spent at least 80% of the FY20 allocated budgetary resources.	(i) Punjab's Assembly has allocated at least 14% of the amount budgeted for DoAg. under the ADP for FY22 towards HVA; and (ii) DoAg. has spent at least 80% of the FY21 allocated budgetary resources.	(i) Punjab's Assembly has allocated at least 15% of the amount budgeted for DoAg. under the ADP for FY23 towards HVA; and (ii) DoAg. has spent at least 80% of the FY22 allocated budgetary resources.
Allocated amount (US\$ m):	36.00	12%		6.00	6.00	6.00	6.00	6.00	6.00
DLI 5 - Providing incentives to agribusinesses for investments in value addition and agricultural technology			No matching grants in ADP.		Punjab has: (a) through the FD, approved and notified in the Gazette the operations manual for the Agribusiness and Innovation Fund; and (b) through the DoAg., set in place the implementation mechanism.	The Agribusiness and Innovation Fund has awarded at least 20 Matching Grants to agribusinesses, of which at least 4 have been awarded to women or young adults in FY19.	The Agribusiness and Innovation Fund has awarded at least 50 Matching Grants to agribusinesses, of which at least 15 have been awarded to women or young adults in FY20.	The Agribusiness and Innovation Fund has awarded at least 70 Matching Grants to agribusinesses, of which at least 28 have been awarded to women or young adults in FY21.	The Agribusiness and Innovation Fund has awarded at least 100 Matching Grants to agribusinesses, of which at least 50 have been awarded to women or young adults in FY22.
Allocated amount (US\$ m):	10.00	3%			1.00	2.00	3.00	3.00	1.00

Disbursement	Total	As % of	DLI Baseline	Prior results					
linked indicator (DLI)	financing allocated (US\$ m)	total financing amount			2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 (Year 5)
DLI 6 – Improving market conditions for meat and raw milk			Prices of meat and raw milk are on the list of Essential Commodities subject to price caps.			Punjab has publicly announced and implemented market- based pricing for meat and raw milk in FY19.			Punjab has implemented market-based pricing for meat and raw milk in FY20 through FY22.
Allocated amount (US\$ m):	10.00	3%				2.50			7.50
DLI 7 - Modernizing agricultural markets			Punjab Agriculture Produce Marketing Ordinance, 1978.		Punjab's Assembly has approved and notified in the Gazette the Punjab Agricultural Marketing Regulatory Authority Act ("PAMRA Act").			DoAg. has ensured that all agricultural produce marketing operates exclusively under the PAMRA Act.	
Allocated amount (US\$ m):	22.00	7%			2.00			20.00	
DLI 8 - Improving food safety			No food testing laboratories.			DoAg has established and operationalized a provincial reference agriculture and food testing lab, in accordance with the ISO/IEC 17025:2005 standard.	Department of Food (DoF) has established and operationalized one (1) regional food testing lab and two (2) divisional mobile foods testing labs, all in accordance with the ISO/IEC 17025:2005 standard.	DoF has established and operationalized a second regional food testing lab and three (3) divisional mobile foods testing labs, additional to those of Year 3, all in accordance with the ISO/IEC 17025:2005 standard.	DoF has established and operationalized a third regional food testing lab and four (4) divisional mobile foods testing labs, additional to those of Years 3 and 4, all in accordance with the ISO/IEC 17025:2005 standard.
Allocated amount (US\$ m):	10.00	3%				1.00	2.25	3.00	3.75
DLI 9 - Improving sustainability and efficiency of irrigation			Punjab Water Policy and Ground Water Act under preparation.  Abiana assessment = Pakistani Rupee (PKR) 1 billion in FY16/17, of which 61% is collected.  Equity of water distribution in		(a) Punjab's Cabinet has approved and notified in the Gazette a Punjab Water Policy (1.00); (b) Punjab Irrigation Department (PID) has improved the abiana assessment for FY18, based on irrigated cultivated area (perennial or not), to at	(a) Punjab's Assembly has approved and notified in the Gazette the Punjab Groundwater Act (1.00); (b) PID has increased the abiana collection in FY19 to reach 75% of the improved assessment (1.00); and (c) PID has improved the equity of water	(a) PID has: (i) demarcated the critical groundwater areas of Punjab; and (ii) notified and published the groundwater zoning and map thereof (1.00); (b) PID has increased the abiana collection in FY20 to reach 80% of the improved	(a) PID has: (i) established an electronic geo- referenced database for tube wells; and (ii) registered all existing tube wells in Punjab including their geographical coordinates (2.00); and (b) PID has increased the abiana collection in FY21 to reach 85% of	PID has increased the abiana collection in FY22 to reach 90% of the improved assessment.

Disbursement	Total	As % of	DLI Baseline	Prior results		Indicat	tive timeline for DLI achiev	vement	
linked indicator (DLI)	financing allocated (US\$ m)	total financing amount			2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 (Year 5)
			accordance with entitlements with delivery performance ratio of 0.70.		least PKR 2 billion (1.00); and (c) PID has improved the equity of water distribution in accordance with entitlements, with a delivery performance ratio of 0.75 in FY19 for targeted canals (1.00).	distribution in in selected canals in accordance with entitlements, with a delivery performance ratio of 0.80 in FY19 (2.00).	(c) PID has improved the equity of water distribution in in selected canals in accordance with entitlements, with a delivery performance ratio of 0.85 in FY20 (1.00).	the improved assessment (2.00).	
Allocated amount (US\$ m):	16.00	5%			3.00	4.00	3.00	4.00	2.00
DLI 10 - Rolling- out an agricultural insurance system			Crop loan insurance scheme is mandatory for all seasonal crop credit borrowers – but protects lenders, not farmers.	DoAg. has approved the Diagnostic Report assessing the crop loan insurance scheme and analyzing options for an agricultural insurance coverage.	(a) DoAg. has developed and adopted a five-year work plan for the roll out of an agricultural insurance scheme, based on the recommendation of the Diagnostic Report (0.50); and (b) DoAg. has piloted an agricultural insurance scheme in at least 2 districts, one each in Punjab's cotton and rice belt, with an insurance take-up reaching 50,000 policies sold in FY18 (0.245).	DoAg. has implemented the agricultural insurance scheme in districts additional to those covered in FY18, with an insurance take-up reaching 250,000 policies sold in FY19.	DoAg. has implemented the agricultural insurance scheme in districts additional to those covered in FY18 and FY19, with an insurance take-up reaching 500,000 policies sold in FY20.	DoAg. has implemented an agricultural insurance scheme in districts additional to those covered in FY18 though FY20, with an insurance take-up reaching 750,000 policies sold in FY21.	DoAg. has implemented an agricultural insurance scheme in districts additional to those covered in FY18 though FY21, with an insurance take-up reaching 1,000,000 policies sold in FY22.
Allocated amount (US\$ m):	14.00	5%		1.00	0.74	1.23	2.45	3.68	4.90
DLI 11 - Increasing public investment in climate-smart agriculture			3% of allocation for agriculture in FY17 ADP for climatesmart agriculture (CSA). 50% of total allocation for agriculture spent.	Punjab's Assembly has allocated at least 6% of the amount budgeted for agriculture under the ADP for FY18 to investments in CSA.	(a) Punjab's Assembly has allocated at least 8% of the amount budgeted for agriculture under the ADP for FY19 to investments in CSA; and (b) DoAg. has spent at least 60% of	(a) Punjab's Assembly has allocated at least 10% of the amount budgeted for agriculture under the ADP for FY20 to investments in CSA; and (b) DoAg. has spent at least 70% of	(a) Punjab's Assembly has allocated at least 12% of the amount budgeted for agriculture under the ADP for FY21 to investments in CSA; and (b) DoAg. has spent at least 80% of	(a) Punjab's Assembly has allocated at least 14% of the amount budgeted for agriculture under the ADP for FY22 to investments in CSA; and (b) DoAg. has spent at least 80% of	(a) Punjab's Assembly has allocated at least 15% of the amount budgeted for agriculture under the ADP for FY23 to investments in CSA; and (b) DoAg. spent at least 80% of the

Disbursement	Total	As % of	DLI Baseline	Prior results	Indicative timeline for DLI achievement					
linked indicator (DLI)	financing allocated (US\$ m)	total financing amount			2018 (Year 1)	2019 (Year 2)	2020 (Year 3)	2021 (Year 4)	2022 (Year 5)	
					the resources allocated therefor in FY18.	the resources allocated therefor in FY19.	the resources allocated therefor in FY20.	the resources allocated therefor in FY21.	resources allocated therefor in FY22.	
Allocated amount (US\$ m):	32.00	11%		2.00	6.00	6.00	6.00	6.00	6.00	
DLI 12 – Communi- cations, beneficiary feedback, capacity building, and monitoring and evaluation			Technical assistance provided during Program preparation including series of policy notes, assessment of communications capacity, review of agricultural research and extension.		Pⅅ has developed a communications strategy for the Program, including beneficiary feedback, and started its implementation.	The participating departments have prepared and implemented the FY19 annual capacity building plan, in a manner and substance acceptable to the Bank.	The participating departments have prepared and implemented the FY20 annual capacity building plan, in a manner and substance acceptable to the Bank.	The participating departments have prepared and implemented the FY21 annual capacity building plan, in a manner and substance acceptable to the Bank.	The participating departments have prepared and implemented the FY22 annual capacity building plan, in a manner and substance acceptable to the Bank.	
Allocated amount (US\$ m):	10.00	3%			1.00	2.25	2.25	2.25	2.25	
Total financing allocated:	299.25	99.75%		10.00	36.49	42.48	53.45	103.43	53.40	
Front end fee	0.75	100%								

Table 4. DLI verification protocol

DLI	DLI title	Definition/description of achievement	Scalability of	Protoc	col to evaluate	achievement of the DLI and data/result verification
no.			disbursement	Data source/	Verification	Procedure
			(Yes/No)	agency	entity	
1	Improving access to quality farm inputs	E-voucher system for agricultural inputs in place and reaching targeted farmers.	No	Agriculture Department	Firm competitivel y recruited by GoPunjab	<ul> <li>Ag. Department to maintain records of farmers provided with E-vouchers for agricultural inputs subsidy with unique numbers and provide this information to WB.</li> <li>Firm to verify records and conduct random authentication.</li> </ul>
2	Revitalizing provincial crop and livestock research and extension systems	Sequence of: (a) agricultural and livestock research and extension strategy and policy developed and approved, in line with recommendations of World Bank review and including (i) review of the current structure, conduct and performance of the Punjab agricultural research and extension (R&E) system, (ii) recommendations regarding restructuring of the Punjab agriculture R&E system and redefining its mandate, and (iii) recommendations regarding organizational structure including role of private sector; (b) Punjab Agricultural Research Board Act 1997 amended, including reconstitution of Board with majority of members from private sector and revised operational procedures in line with recommendations of World Bank review; (c) increased allocation to research (ADP & Recurrent) expressed as a percentage of AgGDP and spending against allocation; and (d) resource allocation for competitive grants.	Yes	- MTDF <sup>a</sup> - Punjab Budget Civil Accounts - Agriculture, Livestock & Dairy Development, Finance, P&D Departments	Same firm	<ul> <li>Ag. Department to communicate approved Crops and Livestock Research and Extension Policy</li> <li>Ag. Department to provide Gazette notification of Punjab Agricultural Research Board (PARB) Act amendment and reconstitution of its Board of Directors.</li> <li>Ag. Department and Livestock &amp; Dairy Development Department to notify WB of final allocations at the beginning of each FY (July)</li> <li>Firm to verify approved allocations, spending against approved allocations and all of above.</li> </ul>
3 (a)	Improving livestock health	Heads of account for preventive and curative care separated in the recurrent budget Gradual reallocation of resources from curative care to preventive care until 90% of the budget is apportioned to preventive care.	No	- Livestock & Dairy Development, Finance Departments	Same firm	<ul> <li>Livestock &amp; Dairy Development Department to notify WB notification of Finance Department regarding separation of heads of account in the budget and final allocations for preventive and curative care at the beginning of each FY (July).</li> </ul>
				- Punjab Budget Civil Accounts		- Firm to verify separation of heads of account in the budget, annual allocation and spending.
3 (b)	Improving livestock breeding	Progress in registering Sahiwal cow, Neeli Ravi buffalo, and Cholistani cow in progeny testing program.	No	Livestock & Dairy Development Department	Same firm	<ul> <li>Livestock &amp; Dairy Development Department to maintain ICT-based database for each species and notify WB of progress in registration of animals in progeny testing program.</li> <li>Firm to verify registration records.</li> </ul>
4 (a)	Modernizing the wheat marketing system	GoPunjab plan for withdrawal from official wheat procurement program in 2018 and gradual	No	Food, Finance Departments	Same firm	<ul> <li>Food Department to notify public and WB of phasing out of official wheat procurement system and reducing wheat reserve to not more than 2 million MT by rabi 2021.</li> </ul>

DLI	DLI title	Definition/description of achievement	Scalability of	Protoc	col to evaluate	achievement of the DLI and data/result verification
no.			disbursement	Data source/	Verification	Procedure
		downscaling of wheat strategic reserve to not more than 2 million MT by <i>rabi</i> 2021 approved.	(Yes/No)	agency	entity	- Firm to (a) verify documentary evidence that GoPunjab has formulated and disseminated policy to phase out official wheat procurement system, (b) verify Food Department records regarding quantities of wheat procured, (c) verify that GoPunjab has phased out its wheat procurement program in which farmers can offer their wheat to government procurement centers, and (d) verify that arrangements have been developed for bulk storage facilities for 2 million MT under public-private partnership.
4 (b)	Transitioning to high-value agriculture	- Agriculture Policy focusing on increasing productivity, modernizing agricultural markets, promoting high-value agriculture (HVA), addressing price distortions, and promoting resilience, approved and notified Increased percentage points of ADP allocation for agriculture invested in helping farmers transition from traditional crops to HVA Increased area under HVA.	No	- MTDF - Punjab Budget Civil Accounts - Agriculture, P&D Departments - Crop Reporting Service (Agriculture Department)	Same firm	<ul> <li>Ag. Department to communicate to WB approved and notified Agriculture Policy.</li> <li>Ag. Department to notify WB of final allocations at the beginning of each FY (July).</li> <li>Firm to verify approved allocations and spending</li> <li>Firm to verify area under HVA.</li> </ul>
5	Providing incentives to agribusinesses for investments in value addition and agricultural technology	<ul> <li>Setting up Agribusiness and Innovation Fund.</li> <li>Operational Manual for Agribusiness and Innovation Fund satisfactory to WB approved and notified.</li> <li>Total amount of funds (in US\$) awarded every year as matching grants to agribusinesses.</li> </ul>	Yes	Agriculture Department	Same firm	<ul> <li>Finance Department to notify establishment and operationalization<sup>c</sup> of Fund.</li> <li>Approved Operation Manual for Matching Grants component of Agribusiness and Innovation Fund communicated to WB.</li> <li>Financial progress reports submitted to WB on agreed template each quarter.</li> <li>Firm to review documentation of grants awarded and conduct interviews with awardees.</li> </ul>
6	Improving market conditions for meat and raw milk	Price caps on meat and milk prices removed (GoPunjab discontinues official notification of prices).	No	Livestock & Dairy Development, and Industries, Commerce & Investment Departments	Same firm	- Departments of Livestock & Dairy Development, and Industries, Commerce & Investment to notify WB of decision of GoPunjab each year.  - Firm to verify discontinuation of price notifications at provincial and district levels.
7	Modernizing agricultural markets	- Draft Punjab Agricultural Marketing Regulatory Authority (PAMRA) Act, enabling private sector and farmers' participation, encouraging modern quality and grading standards, encouraging value chain development and time-bound transition from	No	Agriculture Department	Same firm	- Agriculture Department to inform WB of Gazette Notification of PAMRA Act and Notification saying that crop marketing system has fully transitioned to PAMRA Act and that Punjab Agricultural Produce Markets Ordinance, 1978 is no longer valid

DLI	DLI title	Definition/description of achievement	Scalability of	Protoc	col to evaluate	achievement of the DLI and data/result verification
no.			disbursement	Data source/	Verification	Procedure
		existing Ordinance to new legal regime, approved and notified GoPunjab fully transitioned to PAMRA Act by 2021.	(Yes/No)	agency	entity	- Firm to verify documents and do ground check.
8	Improving food safety	Progress in establishing and operationalizing provincial reference food testing lab, regional labs, divisional labs, mobile labs.	Yes	- Food, Agriculture, P&D Departments - PAFDA <sup>d</sup> - PFA <sup>e</sup> - MTDF - Punjab Budget Civil Accounts	Same firm	<ul> <li>Agriculture Department to notify WB of the establishment and operationalization<sup>f</sup> of PAFDA Reference Lab.</li> <li>PFSA and Food Department to notify WB of establishment and operationalization of regional, divisional, and mobile labs.</li> <li>Firm to verify PC-Is<sup>g</sup> of the relevant schemes, corresponding resource allocations in the budget, and operationalization of laboratories.</li> </ul>
9	Improving sustainability and efficiency of irrigation	- Progress in ensuring sustainability of irrigation systems, technically (Punjab Water Policy and Punjab Groundwater Act) and financially (water charges or <i>abiana</i> assessment improved and collection increased), delivery performance ratio (DPR) improved in command areas of 6 canals.  - Approval and notification of Punjab Groundwater Act that (a) establishes Integrated Water Resources Commission with the power and responsibility to prepare and implement policies and plans for the sustainable use and management of water resources, (b) requires the demarcation of "critical areas" of groundwater over-extraction, (c) requires the registration of existing tubewells, (d) requires a permitting process to be established for any new tubewells, and (e) establishes and enforces a licensing regime for tubewell drillers.  - Approval and notification of Punjab Water Policy with clear policy directions on the sustainable use, management and development of water from all sources, for all sub-sectors across the entire province, to halt or reverse environmental and water resource degradation, while maintaining beneficial uses of water that support socioeconomic outcomes, and specifying appropriate and realistic key policy actions for five priority areas: (a) water governance, (b) water allocation,	No	- Irrigation, Finance Departments - Punjab Board of Revenue - MTDF - Punjab Budget Civil Accounts	Same firm	<ul> <li>Irrigation Department to share Gazette notification for approved Water Policy and Groundwater Act with WB.</li> <li>Irrigation Department to share data regarding improvements in abiana assessment and collection duly verified by Finance Department and Board of Revenue.</li> <li>Water theft (measured by DPR<sup>h</sup>) at the beginning of each financial year (August) notified for each of selected canals</li> <li>Notification and map of critical areas of groundwater and data of existing tubewells.</li> <li>Firm to verify policy notification, improved assessment and collection rate, improved DPR and groundwater critical areas map and database.</li> </ul>

DLI	DLI title	Definition/description of achievement	Scalability of	Protoc	ol to evaluate	achievement of the DLI and data/result verification
no.			disbursement	Data source/	Verification	Procedure
			(Yes/No)	agency	entity	
		(c) water quantity and water-related disaster				
		management, (d) water quality management, and				
		(e) water management outside irrigation command areas.				
10	Rolling-out an	Steps towards rolling out an agricultural insurance	Yes	- Agriculture,	Same firm	- Agriculture Department to communicate five-year workplan
	agricultural	system include (a) approving a diagnostic study, (b)	. 65	Livestock & Dairy	54	to roll out agricultural insurance.
	insurance system	formulating a workplan in line with the		Development,		- Resource allocation by P&D/Finance Departments.
		recommendations of the Diagnostic Report, (c)		P&D,		- Agriculture Department to provide financial progress reports
		piloting agricultural insurance in two districts, and		Finance		to WB each quarter.
		(d) rolling out to all districts.		Departments		- Firm to validate the above and collect information from
				- MTDF		insurance firms, survey.
				- Punjab Budget		
				Civil Accounts	- 0	
11	Increasing public investment in	Increased percentage of ADP allocation for	Yes	- Agriculture, P&D	Same firm	- Agriculture Department to notify WB of final allocations at
	climate-smart	agriculture invested in climate-smart agriculture technologies. i		Departments		the beginning of each FY (July) for CSA and spending against that allocation.
	agriculture	technologies.		- MTDF		- Firm to verify approved allocations and spending.
	agriculture			- Punjab Budget		Thin to verify approved anotations and spending.
				Civil Accounts		
12	Communications,	- Communications strategy developed and	No	- P&D,	Same firm	- Approved communication strategy and implementation
	beneficiary	implemented; beneficiary feedback obtained;		Agriculture,		workplan shared with WB.
	feedback,	annual plans for capacity-building in agribusiness		Livestock & Dairy		- Annual capacity-building plans <sup>J</sup> that include specification of
	capacity building,	and institutional strengthening of implementing		Development,		types of trainings offered, and numbers of participants to be
	and monitoring	departments, and other government organization		Food,		trained.
	and evaluation	developed and implemented.		Irrigation		- Resource allocation for capacity building, training, and ICT-
		- ICT-based monitoring and evaluation (M&E)		Departments - MTDF		based M&E.
		system developed in key implementing departments.		- MIDF - Punjab Budget		- Firm to verify.
		uepartificitis.		Civil Accounts		
		1 15 13 14 23 1 18 18 18 18 18 18 18 18 18 18 18 18 1		CIVII ACCOUNTS		

a MTDF (Medium Term Development Framework). b Any capital expense on HVA financed through the recurrent budget or capital budget will be included while computing capital expenditure on HVA as % of total ADP allocation for agriculture. c Operationalization will be confirmed upon the Fund's entering into a contract with the private sector administrator of the funds, constituting the Fund Board, and appointing the CEO. d PAFDA (Punjab Agriculture, Food and Drug Authority). e PFA (Punjab Food Authority). f Operationalization will be confirmed upon the lab/s having successfully carried out its/their first food test(s). g PC-1 (Planning Commission Pro-forma 1). h Delivery performance ratio (DPR) - defined as actual amount of water delivered divided by amount delivered according to canal design, measured at different points along the canal - is a measure of equity of water distribution. The DPR tends to deteriorate moving downstream, mainly because upstream water users take too much water (water theft) at the expense of water users at the tail of the system. i Any capital expense on CSA financed through the recurrent budget or capital budget will be included while computing capital expenditure on CSA as % of total ADP allocation for agriculture. j Types of training will need to include training of all agribusiness recipients of matching grants; degree training of GoPunjab staff (2 PhDs each year for a total of 8 by 2022; 10 MScs each year for a total of 40 by 2022; 200 staff trained each year on M&E, public procurement, ICT etc., for a total of 800 by 2022); and farmer training in HVA (1,500 farmers in 2019 and 3,500 farmers in each of the years 2019-2022).

Table 5. World Bank disbursement table

DLI no.	DLI title	Bank financing allocated to the DLI (US\$ m)	Of which financing available for prior results (US\$ m)	Deadline for DLI achievement	Minimum DLI value to be achieved to trigger disbursements of Bank financing	Maximum DLI value(s) expected to be achieved for Bank disbursements purposes	Determination of financing amount to be disbursed against achieved and verified DLI value(s)
1	Improving access to quality farm inputs	16.00	1.00	31 December 2022	E-voucher subsidy for agricultural inputs extended to 25,000 farmers with less than 5 ha of farm land	E-voucher subsidy for agricultural inputs extended to 250,000 farmers with less than 5 ha of farm land	E-voucher subsidy for inputs extended to 25,000 small farmers (< 5 ha) is subject to pass/fail and achievement of prior result triggers disbursement of US\$1.0 million. If missed before loan effectiveness, the indicator can be made up for in year 1. Further delays would result in cancellation of the DLI amount allocated to this partial target. Similarly, subsequent targets for the E-voucher scheme can be made up for with a maximum delay of one year, otherwise the corresponding DLI amount would be cancelled.
2	Revitalizing provincial crop and livestock research and extension systems	23.00	-	31 December 2022	0.2% of AgGDP allocated to research, of which 8% channeled through competitive research grants, including private sector	0.4% of AgGDP allocated to research, of which 20% channeled through competitive research grants, including private sector	For year 2, an amount of US\$7.0 million is allocated against three specific targets with disbursements subject to pass/fail. For years 3–5, US\$800,000 will be disbursed per 0.01% Punjab AgGDP equivalent increase in budgetary allocation for agriculture and/or livestock research, over and above the Punjab's AgGDP equivalent allocation to that end in the previous year.
3 (a)	Improving livestock health	15.00	-	31 December 2022	Ratio of expenditures on preventive vs. curative health care 3:1	Ratio of expenditures on preventive vs. curative health care 9:1	Indicator in year 1 is subject to pass/fail and can be made up for only up to the end of the following year. Further delays would result in cancellation of the DLI amount allocated. Indicator in year 3 is also subject to pass/fail and can be made up for only up to the end of the following year.
3 (b)	Improving livestock breeding	15.00	-	31 December 2022	12,000 animals registere in progeny testing programs of Sahiwal, Nee Ravi, and Cholistani	30,000 animals registered in progeny testing program of Sahiwal, Neeli Ravi, and Cholistani	Indicator is subject to pass/fail and year 1 and 3 targets can be made up for only up to the end of the following year. Further delays would result in cancellation of the DLI amount allocated for the targets in years 1 and 3.
4 (a)	Modernizing the wheat marketing system	70.25	-	31 December 2021	-	·	Year 1 target is subject to pass/fail and can be made up for only up to the end of the following year. Further delays would result in cancellation of the DLI amount allocated to this target. For year 2, year 3 and year 4 targets, a fixed amount is allocated, disbursement is subject to pass/fail, and cannot be made up in subsequent years.
4 (b)	Transitioning to high-value agriculture	36.00	6.00	31 December 2022	At least 6% of annual ADP of agriculture (crops) allocated to transition to high-value agriculture (HVA)  Agriculture ADP allocated to transition toward HVA in each year not below the level of the previous year	20% of annual ADP of agriculture (crops) allocated to transition toward HVA	Prior result and years 1-5 are pass/fail and cannot be made up in subsequent years.

DLI no.	DLI title	Bank financing allocated to the DLI (US\$ m)	Of which financing available for prior results (US\$ m)	Deadline for DLI achievement	Minimum DLI value to be achieved to trigger disbursements of Bank financing	Maximum DLI value(s) expected to be achieved for Bank disbursements purposes	Determination of financing amount to be disbursed against achieved and verified DLI value(s)
5	Providing incentives to agribusinesses for investments in value addition and agricultural technology	10.00	-	31 December 2022	20 matching grants awarded	-	Indicator in year 1 is subject to pass/fail and cannot be made up for in following years. For year 2, an amount in USD equivalent to 80% of the aggregate amounts of the awarded Matching Grants but not to exceed USD 2,000,000, provided that at least 4 Matching Grants have been awarded to women or young adults. For years 3 and 4, an amount in USD equivalent to 80% of the aggregate amounts of the awarded Matching Grants but not to exceed USD 3,000,000, provided that at least 15 (in year 3) and 28 (in year 4) Matching Grants have been awarded to women or young adults. For year 5, an amount in USD equivalent to 80% of the aggregate amounts of the awarded Matching Grants but not to exceed USD 1,000,000, provided that at least 50 Matching Grants have been awarded to women or young adults.
6	Improving market conditions for meat and raw milk	10.00	-	31 December 2022	-	-	For years 1 and 5, fixed amounts are allocated. Disbursement is subject to pass/fail and targets cannot be made up for in subsequent years.
7	Modernizing agricultural markets	22.00	-	31 December 2022	-	-	Disbursements in years 1 and 4 are subject to pass/fail and targets and can be made up for only up to the end of the following year. Further delays would result in cancellation of the DLI amount allocated.
8	Improving food safety	10.00	-	31 December 2022	1 testing lab	-	For year 2, a fixed amount of US\$1 million is allocated and is subject to pass/fail. For years 2-5, a fixed amount of US\$750,000 per laboratory established is allocated.
9	Improving sustainability and efficiency of irrigation	16.00	-	31 December 2022	-	-	A fixed amount is allocated to all targets and disbursement subject to pass/fail. Targets cannot be made up for in subsequent years.
10	Rolling-out an agricultural insurance system	14.00	1.00	31 December 2022	25,000 insurance policies in year 1, 125,000 in year 2, 200,000 in year 3, 250,000 in year 4, 300,000 in year 5	1,000,000 insurance policies	Prior result is subject to pass/fail and cannot be made up in subsequent years. Partial target in year 1 is subject to pass/fail and can be made up in year 2. Further delays would result in cancellation of the DLI amount allocated to this partial target. For years 1-5, an amount equivalent to US\$4.90 per every insurance policy sold would be paid, subject to the yearly minimum number of policies sold.
11	Increasing public investment in climate-smart agriculture	32.00	2.00	31 December 2022	At least 6% of annual ADP of agriculture (crops) allocated to transition to climate- smart agriculture (CSA)  Percentage of Agriculture ADP	25% of Agriculture ADP allocated to investments in CSA in year 5	Amount disbursed to be calculated pursuant to the following formulas, provided that the amounts are >0:  Prior result: {[(% of CSA allocation under FY18's ADP / % of CSA allocation in FY17's ADP) -1] / 0.50} x USD 2,000,000  Year 1: {[(CSA allocation under FY19's ADP / CSA allocation in FY18's ADP) -1] / 0.33}x USD 6,000,000  Year 2: {[(CSA allocation under FY20's ADP / CSA allocation in FY19's ADP) -1] / 0.25} x USD 6,000,000

DLI no.	DLI title	Bank financing allocated to the DLI (US\$ m)	Of which financing available for prior results (US\$ m)	Deadline for DLI achievement	Minimum DLI value to be achieved to trigger disbursements of Bank financing	Maximum DLI value(s) expected to be achieved for Bank disbursements purposes	Determination of financing amount to be disbursed against achieved and verified DLI value(s)
					allocated to transition toward CSA in each year does not fall below the level of the previous year		Year 3: {[(CSA allocation under FY21's ADP / CSA allocation in FY20's ADP) -1] / 0.20} x USD 6,000,000 Year 4: {[(CSA allocation under FY22's ADP / CSA allocation in FY21's ADP) -1] / 0.17} x USD 6,000,000 Year 5: {[(CSA allocation under FY23's ADP / CSA allocation in FY22's ADP) -1] / 0.07} x USD 6,000,000
12	Communications, beneficiary feedback, capacity building, and monitoring and evaluation	10.00	1.00	31 December 2022	-	-	Prior result and indicators in years 1-5 are subject to pass/fail.