



# **PERFORMANCE AGREEMENT**

**BETWEEN**

**AGRICULTURE MACHINERY CENTRE (AMC), PARO**

**AND**

**DEPARTMENT OF AGRICULTURE (DoA),  
MINISTRY OF AGRICULTURE AND FORESTS (MoAF)**

**(July 1, 2019 – June 30, 2020)**

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**Preamble**

The Performance Agreement is entered into between the Agriculture Machinery Centre (AMC) and Department of Agriculture (DoA), MoAF.

The objectives of this Performance Agreement are:

- a) To establish clarity and consensus about annual priorities for the Department of Agriculture consistent with the 12<sup>th</sup> Five Year Plan of the Ministry, and Government's other priorities;
- b) To provide an objective and fair basis for evaluating the overall performance of the Agriculture Machinery Centre at the end of the financial year

The Performance Agreement represents an important accountability mechanism for inculcating a performance based culture at all levels of government.

**THEREFORE**, the parties hereto agree as follows:

## **Section 1: Vision, Mission and Objectives**

### **Vision**

A self-reliant, resilient and sustainable agriculture food system.

### **Mission**

Achieve food and nutrition security, agricultural transformation through innovative and sustainable technologies, diversified and competitive economic/production options, inclusive and sustainable policies and programs.

### **Objectives**

- 1) To increase crop production for enhancing food self-sufficiency, income and nutrition security
- 2) To generate and promote climate-resilient agriculture technologies
- 3) To promote organic farming for sustainable agriculture, safe food, and environment conservation
- 4) To develop functional farm infrastructures and facilities (irrigation channel, farm roads, post-harvest facilities, etc.)
- 5) To promote agriculture enterprise development
- 6) To enhance effective and efficient delivery of agricultural services

**Section 2: Objectives, Success Indicators & Target**

Objective	Weight	Action	Success Indicator	Unit	Weight	Excellent (100%)	Very good (90%)	Good (80%)	Fair (70%)	Poor (60%)
To generate and promote climateresilient agriculture technologies	25	Demonstration Trails Conducted	Field day program for exited technologies and outsourced technologies are executed	Number	2	4	3	2	1	0
		Agriculture Production Research Conducted	Technology generated and evaluated for paddy	Number	6	6	5	4	3	2
			Technology generated and evaluated for Maize	Number	6	5	4	3	2	1
			Technology generated and evaluated for Buckwheat	Timeline	2	March	April	May	1st wk June	4th wk June
			Improved technology in stone picking are tested	Timeline	3	February	March	April	May	June
			Development of straw sterilizer for mushroom cultivation	Timeline	2	March	April	May	June	-
			Study on cost analysis of paddy in eastern region	Timeline	1	March	April	May	2nd wk June	4th wk June
Agriculture Technologies Adopted	Farm machinery technology adopted at farmers field (direct seeder, flour mill, rice mill and potato digger)	Number	3	4	3	2	1	0		
To develop functional farm infrastructures and facilities (irrigation channel, farm roads, postharvest facilities, etc.)	1	Agriculture Farm Mechanization Enhanced	Area brought under farm mechanization	Number	1	3640	3276	2912	2548	2184
To promote organic farming for sustainable agriculture, safe food, and environment conservation	5	Monitoring and Report Flagship Program	Progress as per signed Organic Flagship performance agreement	Percent	5	100	90	80	70	60

Objective	Weight	Action	Success Indicator	Unit	Weight	Excellent (100%)	Very good (90%)	Good (80%)	Fair (70%)	Poor (60%)
To enhance effective and efficient delivery of Agricultural services	2	Agriculture Service Enhanced	Technical support on the cardamom dryers provided	Number	1	85	77	68	60	51
			Technical support on hedge cutter provided	Time line	1	March	April	May	June	-
	4	Knowledge and Information Service Enhanced	Training on farm mechanization provided to schools/institutes (TTIs and CNR)	Number	3	4	3	2	1	0
			Audio visual awareness on farm mechanization for High Schools	Timeline	1	March	April	May	June	-
	30	Farm Machinery Standards, Test Codes Developed and Machines Tested	Standards for farm machinery and its accessories developed	Number	10	5	4	3	2	1
			Test codes for farm machinery and its accessories developed	Number	10	5	4	3	2	1
			Testing of farm machinery based on approved test codes completed	Number	10	5	4	3	2	1
	25	Farm Machinery Training Conducted	Power tiller training	Number	5	7	6	5	4	3
			Tractor training	Number	5	3	2	1	0	0
			Mechanic training	Number	7	6	5	4	3	2
			Refresher course on care and maintenance training	Number	8	8	7	6	5	4
	2	Frameworks/Guidelines / Standards/strategies/Manuals developed	Hiring guidelines for two models are reviewed and implemented	Timeline	2	2nd wk May	4th wk May	1st wk June	2nd wk June	4th wk June
	2	Budget Utilization Ensured	Budget utilized efficiently as per the BUP	Percent	2	>95	90	80	70	60
2	Annual Report/Annual Highlight published	Annual report/highlights produced and submitted	Timeline	2	4th wk Jun	1st wk Jul	2nd wk Jul	3rd wk Jul	4th wk Jul	
2	Regional Database Developed	Database on monitoring of hiring machines maintained	Timline	2	March	April	May	June	-	

**Section 3: Trend Values of Success Indicators**

Objective	Action	Success Indicator	Unit	Actual values (FY2018-2019)	Target values (FY 2019-2020)	Projected values (FY 2020-2021)	Projected values (FY 2021-2022)	Projected values (FY 2022-2023)
To generate and promote climateresilient agriculture technologies	Demonstration Trails Conducted	Field day program for exited technologies and outsourced technologies are executed	Number	2	4	5	4	5
	Agriculture Production Research Conducted	Technology generated and evaluated for paddy	Number	5	6	6	5	5
		Technology generated and evaluated for Maize	Number	4	5	6	4	5
		Technology generated and evaluated for Buckwheat	Timeline	Jan	March	April	May	June
		Improved technology in stone picking are tested	Timeline	Feb	Feb	March	June	June
		Development of straw sterilizer for mushroom cultivation	Timeline	March	Mar	June	June	June
		Study on cost analysis of paddy in eastern region	Timeline	March	March	June	June	June
	Agriculture Technologies Adopted	Farm machinery technology adopted at farmers field (direct seeder, flour mill, rice mill and potato digger)	Number	2	4	5	6	7
To develop functional farm infrastructures and facilities (irrigation channel, farm roads, postharvest facilities, etc.)	Agriculture Farm Mechanization Enhanced	Area brought under farm mechanization	Number	3120	3640	4160	4680	5200
To promote organic farming for sustainable agriculture, safe food, and environment conservation	Monitoring and Report Flagship Program	Progress as per signed Organic Flagship performance agreement	Percent	Nil	4	5	5	6

Objective	Action	Success Indicator	Unit	Actual values (FY2018-2019)	Target values (FY 2019-2020)	Projected values (FY 2020-2021)	Projected values (FY 2021-2022)	Projected values (FY 2022-2023)
Efficiency and effectiveness of RNR sector service delivery enhanced	Agriculture Service Enhanced	Technical support on the cardamom dryers provided	Number	66	85	104	115	121
		Technical support on hedge cutter provided	Timeline	March	March	April	march	April
	Knowledge and Information Service Enhanced	Training on farm mechanization provided to schools/institutes (TTIs and CNR)	Number	4	4	4	4	4
		Audio visual awareness on farm mechanization for High Schools	Number	1	1	-	-	-
	Farm Machinery Standards, Test Codes Developed and Machines Tested	Standards for farm machinery and its accessories developed	Number	6	5	5	5	5
		Test codes for farm machinery and its accessories developed	Number	6	5	5	5	5
		Testing of farm machinery based on approved test codes completed	Number	4	5	5	5	5
	Farm Machinery Training Conducted	Power tiller training	Number	593	7	593	598	638
		Tractor training	Number		3			
		Mechanic training	Number		6			
		Refresher course on care and maintenance training	Number		8			
	Frameworks/Guidelines/Standards/strategies/Manuals developed	Hiring guidelines for two models are reviewed and implemented	Timeline	nil	2nd week of May	May	June	June
	Budget Utilization Ensured	Budget utilized efficiently as per the BUP	Percent	>95	>95	>95	>95	>95
Annual Report/Annual Highlight published	Annual report/highlights produced and submitted	Timeline	-	4th wk Jun	4th wk Jun	4th wk Jun	4th wk Jun	
Regional Database Developed	Database on monitoring of hiring machines maintained	Timline	May	March	June	June	June	



#### Section 4: Definition of Success Indicators

Success Indicator	Description	Data Collection Methodology	Data Collection Frequency	Data Source
Field day program for exited technologies and outsourced technologies are executed	The SI measures the numbers of field day program for all exited technologies of farm machines are executed in four regions.	Coordination and feed back from farmers	Bi-annually	Annual report
Technology generated and evaluated for paddy	The SI measures the numbers of technologies generated and evaluated. Direct seeding technology generated and evaluated, power tiller plough and 2 puddling alternatives(for power tiller and tractor) will be improved, tested and evaluated. 2 Weeding technology (dry land & wet land) will also be improved, tested and evaluated	Feedback from farmers	Bi-annually	Annual report
Technology generated and evaluated for maize	The SI measures the numbers of technologies generated and evaluated. Silo is designed, fabricated and tested. Flour mill technology (grinding stone) is tested. Corn sheller is tested and feedback collected. Plough and slope maneuverability will be evaluated based on the farmers feedback.	Feedback back from farmers	Bi-annually	Annual report
Technology generated and evaluated for Buckwheat	The SI measures the timeline by which the buckwheat threshing machine is tested.	Feedback back from farmers	Bi-annually	Annual report

Success Indicator	Description	Data Collection Methodology	Data Collection Frequency	Data Source
Improved technology in stone picking are tested	The SI measures the timeline by which AMC made stone picker is modified, developed and tested. (The indian stone picker is demonstrated and promoted. The Japanese stone picker is also demonstrated to farmers for promotion.)	Farmers feedback	Bi-annually	Annual report
Development of straw sterilizer for mushroom cultivation	The SI measures the timeline by which straw sterilizer for mushroom cultivation is developed. (study, design and develop and futher test the prototype in lab)	Farmers feedback	Bi-annually	Annual report
Study on cost analysis of paddy in eastern region	The SI measures the timeline by which the study on cost analysis of paddy will be carried out and report generated.	Survey and farmers feedback	Bi-annually	Annual report
Technology adopted at farmers field	The SI measures the numbers of technologies generated/outsourced are adopted at farmers field (Direct seeder, potato digger, flour mill and rice mill)	Farmers feedback	Bi-annually	Annual report
Area brought under farm mechanization	The SI measures that new area of farm mechanization enhanced through hiring machines and private machines	Report	Bi-annually	Annual report
Progress as per signed Organic Flagship performance agreement	SI measures the status of progress of 1 organic success indicator which are responsibility of AMC as outlined in the Organic Flagship APA.	Monthly progress report	Monthly	Annual report

<b>Success Indicator</b>	<b>Description</b>	<b>Data Collection Methodology</b>	<b>Data Collection Frequency</b>	<b>Data Source</b>
Technical support on the cardamom dryers provided	The SI measures numbers of technical support to installed cardamom dryer are delivered and new installation support are provided.	Feedback and field day program	Bi-annually	Annual report
Technical support on hedge cutter provided	The SI measures the timeline by which the project supported hedge cutter are provided with guards and frames along with hands on training to end users are provided.	Technology modifications	Bi-annually	Annual report
Training on farm mechanization provided to schools/institutes (TTIs and CNR)	The SI measures the number of training for schools/institutes in operation and maintenance of farm machines, fabrication and development of machines technique and overview of farm mechanization are made aware to the students ( TTI khuruthang, TTI Dekiling, TTI Chumey and CNR BSC students).	Training record	Bi-annually	Annual report
Audio visual are developed and distributed to schools	The SI measures the timeline by which the Audio visual on farm mechanization are developed and distributed to schools	Audio visual video	Bi-annually	Annual report

Success Indicator	Description	Data Collection Methodology	Data Collection Frequency	Data Source
Standards for farm machinery and its accessories developed	The SI measures numbers of standards (cornsheeller, Tractor and power thresher) for farm machinery and its accessories developed and endorsed with AMC technical committee and submitted to BSB. 2 standards (Cardamom dryer and power sprayer) for farm machines and its accessories are developed and submitted to AMC technical committee.	Documents, test of machines in lab as well as field	Bi-annually	Annual report
Test codes for farm machinery and its accessories developed	The SI measures the numbers of test codes (cornsheeller, Tractor and power thresher) for farm machinery and its accessories developed and endorsed with AMC technical committee and submitted to BSB. 4 testcodes (Cardamom , sprayer, rotary blade and weeder) for farm machines and its accessories are developed and submitted to AMC technical committee.	Documents, test of machines in lab as well as field	Bi-annually	Annual report
Testing of farm machinery based on approved test codes completed	The SI measures numbers of farm machineries are tested based on approved test codes at the end of fiscal year	Documents, test of machines in lab as well as field	Bi-annually	Annual report
Power tiller training	The SI measures numbers of power tiller training conducted in center and regionals	Training record	Bi-annually	Annual report
Tractor training	The SI measures numbers of Tractor training conducted in center and regionals	Training record	Bi-annually	Annual report

<b>Success Indicator</b>	<b>Description</b>	<b>Data Collection Methodology</b>	<b>Data Collection Frequency</b>	<b>Data Source</b>
Mechanic training	The SI measures numbers of Mechanic training conducted in center and regionals	Training record	Bi-annually	Annual report
Refresher course on care and maintenance training	The SI measures numbers of Refresher course on care and maintenance training conducted in center and regionals	Training record	Bi-annually	Annual report
Hiring guidelines for two models are reviewed and implemented	The SI measures the timeline by which the central hiring and gewog hiring guidelines are reviewed and further directed for implementations.	Review documents	Bi-annually	Annual report
Budget utilized efficiently as per the BUP	The SI measures the percentage of budget utilized based on the BUP for the FY 2019-2020	Financial statement	Bi-annually	Annual report
Annual report/highlights are produced and submitted	The SI measures the timeline by which the that the annual report is produced and submitted to department.	Report	Bi-annually	Annual report
Database on monitoring of hiring machines maintained	The SI measures that the farm mechanization through FMCL, private are monitored and report generated.	Report	Bi-annually	Annual report

### Section 5: Requirements from other Agencies

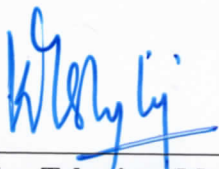
Organisation Name	Relevant Success Indicator	Requirement from the Organisation	Justification for the Requirement	Requirement detail	Impact (If Not Met)
FMCL/Dzongkhang/private firm	The SI measures that new area of farm mechanization are enhanced through hiring machines and private machines	New area achievement report	AMC do not directly executes in area coverage of farm mechanization which are under commercial mandates	Report on farm mechanization area coverage in new area	3640 acres of farm mechanization will be not achieved
Private firms	Testing of farm machinery based on approved test codes completed	Farm machines from private	AMC conducts test of farm machines based on developed standards and test codes however, it depends on private firms to come for test	The farm machines to be brought for test in the center	5 machines cannot be tested
ARDC, Yusipang (organic)	Technology outsourced/generated and promoted under organic program at farmers field	Identify the area of organic agriculture and requirement of farm mechanization interventations	AMC does not have budget for purchasing farm mechanization technologies intervention in organic	collaboration of activities and release of budget on time is required.	Farm mechanization intervention may not be possible

**Whereas,**

I, Program Director, Agriculture Machinery Centre (AMC), commit to the Director, Department of Agriculture (DoA), MoAF to deliver the results described in this Annual Performance Agreement.

We, Department of Agriculture, MoAF commit to the Program Director, Agriculture Machinery Centre to provide necessary support for the delivery of the results described in this Annual Performance Agreement.

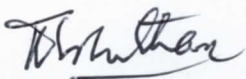
**SIGNED:**



**Kinlay Tshering (Ms.)  
DIRECTOR, DoA**

28<sup>th</sup> August, 2019

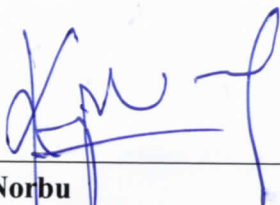
**Date**



**Karma Tshethar  
CHIEF, AED**

28/8/19

**Date**



**Kinga Norbu  
PROGRAM DIRECTOR  
AGRICULTURE MACHINERY CENTRE**

28/8

**Date**