

Operations and Maintenance (O&M) Plan

Related to Activity 1.1, the National Agency for Meteorology and Environmental Monitoring (NAMEM) has provided assurance that any computer equipment procured by the project would be housed in a fully air-conditioned computer room, with regular personnel to operate and maintain the equipment - \$60,000-80,000 per year has been committed for related costs. The GCF project will provide support during implementation for related training.

Related to Activity 2.2, following local law, full operations and maintenance (O&M) costs for investments to are to be borne by the local government. Details and related costs for this work are detailed below. Letters of commitment for O&M costs for 20 years have been provided by the 4 project aimags.

Activities	Quantity	Total investment (USD)	Annual O&M cost for target soums (1-2% of total cost)	Annual O&M cost for 5,10,15,20 years (3% of total cost)	O&M cost during the project implementation period	O&M cost after project implementation	Annual O&M cost to each soum	Total for 20 years
Khovd (17 soums)								
Maintenance and rehabilitation of engineered wells	55	341,670	6,833	10,250			402	
Maintenance and rehabilitation of hand wells	25	29,400	588	882			35	
Maintenance and operation for water harvesting structure (up to capacity of 100 tonn water)	7	176,400	3,528	5,292			208	
Spring protection	20	25,200	504	756			30	
Emergency fodder storage facilities	15	220,500	4,410	6,615			259	
Haymaking and pasture reserve areas	1200	907,200	9,072	27,216			534	
Total		1,700,370	24,935	51,011	200,624	403,974		604,598
Dornod (14 soums)								
Maintenance and rehabilitation of engineered wells	25	107,100	2,142	3,213			153	

Maintenance and rehabilitation of hand wells		-	-	-			-	
Maintenance and operation for water harvesting structure (up to capacity of 100 tonn water)	4	100,800	2,016	3,024			144	
Spring protection	20	33,600	672	1,008			48	
Emergency fodder storage facilities	9	132,300	2,646	3,969			189	
Haymaking and pasture reserve areas	900 ha	756,000	7,560	22,680			540	
Total		1,129,800	15,036	33,894	124,110	252,042		376,152
Zavkhan (24 soums)								
Maintenance and rehabilitation of engineered wells	75	558,600	11,172	16,758			466	
Maintenance and rehabilitation of hand wells	25	32,550	651	977			27	
Maintenance and operation for water harvesting structure (up to capacity of 100 tonn water)	2	50,400	1,008	1,512			42	
Spring protection	20	25,200	252	756			11	
Emergency fodder storage facilities	0		-	-				
Haymaking and pasture reserve areas	900 ha	1,058,400	10,584	31,752				
Total		666,750	13,083	20,003	98,501	190,837.50		289,338
Sukhbaatar (13 soums)								
Maintenance and rehabilitation of engineered wells	30	55,650	1,113	1,670			86	
Maintenance and rehabilitation of hand wells	45	17,850	357	536			27	

Maintenance and operation for water harvesting structure (up to capacity of 100 tonn water)	5	126,000	2,520	3,780			194	
Spring protection	28	35,280	706	1,058			54	
Emergency fodder storage facilities	9	132,200	2,644	3,966			203	
Haymaking and pasture reserve areas	720	538,272	5,383	16,148			414	
Total		905,252	12,722	27,158	103,491	208,696		312,187
Grand total		4,402,172	65,777	132,065	526,725	1,055,549		1,582,275