UNDAF Outcome 1: By 2012, opportunities for generation of income and employment increased in targeted poor areas. (MDGs 1, 8) UNDAF Outcome 5: By 2012, national capacity for environmental sustainability and disaster management strengthened. (MDGs 7)

Expected CT Outcomes: 1.2, 1.5

Expected CT Output(s): 1.2.1, 1.2.3, 5.1.2, 5.2.3, 5.4.2

Implementing partner: Ministry of Agriculture and Forests

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Programme Period: 2008-2012

Programme Title: Support to Ministry of Agriculture and Forests for Ensuring Food Security Award Title: Food Security through Improved & Sustainable Agriculture and Natural Re-

source Management

Duration: 18 Months (Jan 2011—June 2012)

Total estimated 18 month budget: US\$ 1,456,885 (FIC# 2407)

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\$788.721 (2011) FAO

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Agreed by the Implementing Partner:

Agreed by the Royal Government of Bhutan:

Agreed by FAO:

Agreed by UN Agencies:

Secretary

Ministry of Agriculture and Forests Date:

Mr. Karma Tshiteem Secretary

GNH Commission

Ms. Buithi Lan Representative FAO

Date:

Ms. Claire Van der Vaeren **UN Resident Coordinator and UNDP** Resident Representative

Date: 15 Feb latt

EXPECTED CP OUTPUTS and indicators including 18 months' targets	List a	PLANNED ACTIVITIES all activities including M&E to be undertaken during the year towards stated CP outputs	Ω1	20)11	RAN Q4	20	112	RESPONSIBLE F Implementing Partner			UDGET Budget Description	Amount (US\$) 2011	2012	Total
	FAO s	support to Ministry of Agricutire and Forests									1		,		,
1.2.1 Agricultural productivity enhanced through improved technologyg and diversified irrigation	1	Risk Based Strategies developed for Control of Foot and Mouth Disease (FMD)	x	×	x				DOL/MoAF	FAO	RR		200,000		200,000
systems.	2	TOR for southern irrigation project drafted	x	х					DoA/MoAF	FAO	RR		4,045		4,045
Indicator: Crop yield per acre/hectares in targeted	3	Pilot Groundwater survey in Samtse conducted	1	x					DoA/MoAF	FAO	RR	TA	55,306	_	55,306
villages. Target (18 months rolling):	4	Food safety and standards in the country strengthened	x	x	x	x			BAFRA	FAO	RR		120,000		120,000
Risk based strategies on FMD implemented within September 2011 Draft southern irrigation project ToR finalized	5	Research Policy for the RNR Sector developed	x						CoRRB/PPD MOAF	FAO	RR	TA	29,722		29,722
•Four wells drilled and pumps installed to extract aroundwater in Samtse	6	Cryo-prescription Protocols of Animal Genetic Labs in Bhutan established	x						NBC	FAO	RR	ТА	17,050		17,050
•Technical Cooperation Programme proposal on Food safety and standards developed	7	Formulation and publication of Bio-security Policy of Bhutan supported	x	x					BAFRA	FAO	RR	TA/ publications	4,815		4,815
•Research policy on RNR sector, lab protocols, publication of biosecurity policy and farming	8	Farming adapted to climate change	x	x	×	x	x	x	DOA	FAO	DaO	TA/supplies/ w/shops	130,000		130,000
adaptation proposal to climate change completed	9	Capacity building and Enhanced Regional Collaboration for the Conservation and Sustainable Use of Plant Genetic Resources In Asia	x	x	x	x			NBC	FAO	RGoB		14,000		14,000
1.2.3 Capacity of small farmers enhanced through formation of self-help groups and targeted extension	1	MADP organically produced for sustainable livelihood (regional)	x	×	×	x			DoA/MoAF	FAO	RR		21,783		21,783
services. Indicator: Number of newly established and functioning self-help groups and cooperatives in targeted gewogs. Target: -Two regional meetings on organic production of MADP conducted -School agriculture programme implemented in two community schools	2	School agriculture programme supported	x	x	x	x			CoRRB	FAO	FAO +DaO		50,000		50,000
5.4.2 Sustainable land management, biodiversity Conservation, and utilization of natural resources promoted/strengthened. Indicator: National capacity strengthened to address natural resources management issues. Target: Country Report on Forest Genetic Resources.	1	Country Report on Forest Genetic Resources prepared	x	×					RDC - Yusipang	FAO	FAO		35,000	-	35,000

EXPECTED CP OUTPUTS and indicators including 18 months' targets		PLANNED ACTIVITIES all activities including M&E to be undertaken during the year towards stated CP outputs Capacity building on payment for environment		257) 257)	MEFF Malaus	AME	012	RESPONSIBLE	PARTY	PLANNED B	JDGET		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	
5.1.2 Environment mainstreaming tools		the year towards stated CP outputs	O1	02	os (67	Implementing Partner	Div.	Source of Funds	Budget Description	Amount (US)	2012	Total
Istrengthened.	1_1_	Capacity building on payment for environmen	tals	erv	ices	PES) sup	ported	1		Design of the second	No. of the		1.
guodo.	1.1	Local Farmers Study Tour	x			\top	Τ	***************************************	T					Т
Indicator:	1.2	Study Tour of PES Facilitators to Nepal	х			-	+-		1					
Number of relevant rules, regulations and tools addressing cross-sectoral issues developed.	1.3	Advance Level Arc SWAT Training for Technical Staff of WMD and Partners	х											
Target: PES guidelines and tools developed and tested.	1.4	Development of PES Manual, Water Accounting Guidelines and Guidelines for Ecosystem Service Valuation.	x	х										
	1.5	Conduct Water accounting using the FAO Water accounting Guidelines.	х											The state of the s
	1.6	Assessment of existing stations, installation, and developing Monitoring Protocol (Wang)	x	x										
	1.7	Consultation workshop on watershed classification in the Wang Watershed.		x				WMD	FAO	FAO		107,000	-	107,000
	1.8	Document the process used to reach a PES agreement in Mongar including the negotiations on WTP/WTA	х											
	1.9	Rapid Watershed Assessment using WMD Guidelines	х		-	-								
	1.10	Development of Monitoring protocol to assess the impacts of potato production on the wetland health.	×						Martin agree furth action residence reverse for					
	1.11	Preparation of PES implementation plan & business case		x					Against 1888 1888 1888 1888 1888 1888 1888 18					
	1.12	Presentation on PES and poverty alleviation		x			\Box							
Total			///		m							788,721		788,721

EXPECTED CP OUTPUTS		PLANNED ACTIVITIES			ЛЕFR 11	AME	2012	RESPONSIBLE	PARTY	PLANNED E		Amount (US\$)		enemen (elektri, krjanski)
and indicators including 18 months' targets	List a	Il activities including M&E to be undertaken during the year towards stated CP outputs		20 Q2				Implementing 2 Partner	UN	Source of Funds	Budget Description		2012	Total
<u>1 - 3 </u>	Revita	ilsing rural economy with formation of farmer	s gro	ups	and	COC	per	atives [internation	onal Year	of the Coo	peratives (IYC)]		
1.2.3 Capacity of small farmers enhanced through formation of self-help groups and targeted extension services.	1	A National Committee with members from UN and other relevant agencies set up and functional.	x					DAMC (in cooperation with BDFCL)	UNDP			0	0	0
Indicator: Number of newly established and functioning self-help groups and cooperatives in targeted gewogs Target (18 months): At least 20 farmer groups/coops registered nation-wide, with sex disaggregated data, and 100 farmers with minimum 50 women trained in Mongar, Chukha, Wangdue and Punakha. The	2	Public awareness campaigns conducted in three regions (West, East and South), coupled with media promotions through gender sensitive radio and TV programmes.		x	x	x		DAMC (in cooperation with BDFCL)	UNDP	RR	Media costs (\$1,000)/ Workshop & Conference (3,000)/ LTA (4,000)/ Travel (2,000)	10,000		10,000
development of the cooperative sector in Bhutan promoted among all the relevant political, governmental and private stakeholders. • Best practices and knowledge shared with relevant experts from around the world to contribute to the development of cooperatives globally as well as the	3	National workshop/conference conducted at the national level for male and female members of registered farmers groups and cooperatives.		x	x	x		DAMC (in cooperation with BDFCL)	UNDP	RR	Workshop & Conference (7,000)/ Travel (3,000)	10,000		10,000
drafting of Cooperative Development Strategy in Bhutan.	4	International seminar/ conference conducted on cooperatives as social and economic development engines.				,	x x	DAMC (in cooperation with BDFCL)	UNDP	RR	Workshop & Conference (7,000)/ Travel (13,000)		20,000	20,000
Total												20,000	20,000	40,000

EXPECTED CP OUTPUTS and indicators including 18 months' targets		PLANNED ACTIVITIES II activities including M&E to be undertaken during the year towards stated CP outputs of then national citrus nursery programme to enh	oil	20 Q2	11 Q3	Q 4	20 01	12 Q2	RESPONSIBLE F Implementing Partner	PARTY	PLANNED B Source of Funds	Budget	Amount (US\$	Christian State of the state of	Total
1.2.1 Agricultural productivity enhanced through improved technology and diversified irrigation systems. Baseline: No survey conducted on household level vegetable consumption and production. There are 2 citrus nurseries at Research Center and National Seed Center in Bhur, Sarpang in the	1	3 nursery structures & 2 labs for disease diagnosis/ testing constructed in Research and Development Sub-Centre, Mithun, Tsirang, with the capacity to produce a minimum of 40,000 seedlings/ nursery/ year	x	x	arme	ers'	inc	om	e DoA	UNDP	RR (*includes \$53,489 carried over from 2010)	Construction service	101,440		101,44
entire country. Potato yield in Wangdue Dzongkhag is 7.3 metric tons per acre (Agriculture statistics 2009). Indicator: Crop yield per acre/ hectares in targeted villages. Target (18 months): 2 nurseries with mother block repositories that meets national requirement for earthquake resistence established with the capacity to produce minimum of 40,000 seedlings/ nursery/ year; and maintenance of back-up stock and scion source trees.	2	Potato seeds supplied to Daga Geog,Wangdue (Spill over from the previous year) to increase production	x						DoA (with RC Bajo/ Dzongkhag, MoAF)	UNDP	RR	Supplies	2,200		2,20
• 4.5 tons of seed potatoes distributed to men and women farmers in Taksha, Silli and Tsara villages of Daga Geog under Wangduephodrang Dzongkhag. • National survey on the household level vegetable consumption and production conducted with disaggregated information for male and female headed households.	3	National survey on consumption and production of vegetables conducted at the household level to assist in planning more rigorous field interventions					x		DoA (Horitculture Division, MoAF)	UNDP	RR	TA/local consultant/ publications		35,000	35,00
Total			m	777		,,,	~~	777							

EXPECTED CP OUTPUTS and indicators including 18 months' targets		PLANNED ACTIVITIES Il activities including M&E to be undertaken during the year towards stated CP outputs		20 Q2	Q3	- 1	201	RESPONSIBLE F 2 Implementing Q2 Partner	ARTY UN	PLANNED B Source of Funds	UDGET Budget Description	Amount (US\$) 2011 20	112	Total
		ated Livestock & Crop Conservation Programs												
5.4.2 Sustainable land management, biodiversity Conservation, and utilization of natural resources promoted/strengthened		National policies and plans to mainstream ag Draft National Biodiversity Policy finalized.			/ers		ons	NBC (with	ened UNDP	GEF	71200	10,000	_	10,000
Baseline:		Drait Haddid Diodiversity Felloy Intalized.			_	+	\dashv	PPD)	UNDP		1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	70,000		
Government officials trained in PGR & ANGR from 2007 - 2010. PGR & ANGR collected and preserved in the gene bank.	1.2	Food and Nutrition Security Policy formulated (co-funding)		x				NBC (with PPD)	& FAO (additional TA from FAO)	GEF	72100	6,713		6,713
Indicator: 1. National capacity strengthened to address natural resources management issues 2. Increased awareness and coordination amongst	1.3	Sectoral poicies and plans reviewed from agrobiodiversity conservation perspective.			х	x	×	NBC (with X PPD, DoL, DoA & DAMC)	UNDP & FAO	GEF	75700	500	-	500
stakeholders/local governments/central agencies on biodiversity/agro-biodiversity and sustainable land							///					17,213	-	17,213
management.	2	Capacity of MoAF agencies (NBC, and Stakeh							odiversi	y conserva	tion enhanced			
Target: 1.1 National Biodiversity Policy & Nutrition Security Policy formulated and stakeholder consultation initiated.		Exploration and collection of AnGR and PGR Germplasm and conservation in the Gene Banks continued.							UNDP & FAO	PG0B			-	-
1.2 2 Staff of NBC trained in AnGR documentation. 2.1 National Livestock Breeding Programme incorporates breeding and management of traditional livestock varieties (in-situ and ex-situ)	2.2	Training of AnGR staff of NBC in documentation/database conducted.		x				NBC	UNDP & FAO (additio nal TA from FAO)		75700	2,500	-	2,500
	2.3	Documentation of Information on AnGR & PGR collections.	x	х	x	х	x	X NBC	FAO	RG0B		-	-	-
	2.4	PVS on Buckwheat to study GXE of GR in ar effort to cope with/adapt to climate change initiated.		x	x	x		NBC (with DoA)	UNDP	GEF	72100	200	-	200
	2.5	Nucleous Herd and performance evaluation Information system development and training supported.		х	х	x		NBC (with DoL.)	UNDP	GEF	72100	52,033	-	52,033
Sub-total												54,733	-	54,733

EXPECTED CP OUTPUTS and indicators including 18 months' targets	List	PLANNED ACTIVITIES all activities including M&E to be undertaken during the year towards stated CP outputs	l l	71 20 1 02	MEF 011 03	RAMI	E 2012 01.0	RESPONSIBLE F Implementing Partner	ARTY UN	Source of	Budget -	Āmount (US\$		
Populin	3	Capacity of farmers to increase production a	ınd i	ncor	ne fi	rom	sust	ainable utilization	of tradit	Funds ional varieti		2011 Strenathene	2012 d	Total
Baseline: 1. Potential commodties identified in the marketing strategy (2008) for product development; 2. Record of farmers trained in imporved management practices from 2008-2010; 3. Results of impact assessment of ILCCP interventions in 2010.	3.1	Supply of agriculture and livestock inputs to pil sites continued - to enhance productio diversify products in order to improve livelihood and contribute conservation of native breed and varieties.	ot 1,					NBC (with /DoL/DoA/ Dzongkhag)	UNDP	GEF	72100	61,078		61,07
ndicator: I. No. of households/communities/farmers penefitted through various natural resources nanagement interventions.	3.2	Train farmers on improved manageme practices on selected commodities.	^	х				NBC (with DoA Dzongkhag)	UNDP	GEF	71600	15,000		15,00
Farget: 1.1 Production of 1 crop variety in 6 sites increased by 15% over the baseline;	3.3	Provide TA and training for product devt ar diversification of sheep.	d	х				NBC (with NSBC)	UNDP	GEF	71200	5,556	_	5,55
.2 Communities of 4 sites in 3 districts undertake nitiatives to conserve yak and nublang. (Target emale headed households)	ł	Finalise marketing strategies for potenti commodities in 6 sites (Bumthang, Tsiran Trashigang, Haa, Chhukha & Pemagatshel).	al g, X	х				NBC (with DoA/DoL/DAM C/Dzongkhags)	UNDP	GEF	75700	400	-	40
ande headed nouseholds) .3 50 farmers (at least 40% women representation) .3 50 farmers (at least 40% women representation) .4 Farmers (Target female headed hh) of at least 5 ites increase income by 15% on average over	l	Develop advocacy materials on agrobiodiversi conservation through diversity fairs/food fairs.	У			x		NBC	UNDP	GEF	74200	5,966	-	5,96
Sub-total		Project Management		7//	///									
	4	Project Management	4//									88,000		88,00
		Project Board (PB) and Annual review of ILCCP	. x		х			NBC	UNDP	GEF	75700	9,000	11,578	20,57
Sub-total Sub-total	4.2	Terminal Evaluation			,,,,			UNDP	UNDP	GEF			12,000	12,00
Total	V/////	######################################	244									9,000	23,578	32,57

EXPECTED CP OUTPUTS and indicators including 18 months' targets		PLANNED ACTIVITIES I activities including M&E to be undertaken during the year towards stated CP outputs nentation of Bhutan Human-Wildlife Conflict M	Q1	20 Q2	Q3	Q4	201 Q1 (12 Partner			Budget	Amount (US\$) 2011 2	2012	Total
	imple	HWC mitigated through livestock and crop in						y (HVVC)					····	
		HWC mitigated through livestock and crop in	J	mce	3 501	lem	<u> </u>				·			
CT Output 5.4.2: Sustainable land management, biodiversity Conservation, and utilization of natural resources promoted/strengthened. Baseline: 1. Information on HWC mitigation measures initiated		Initiate Livestock Insurance Schemes in two geowgs through the formation of Gewog Conservation Committee.		x	x	x		WCD	UNDP	RR (includes \$5,000 unfunded amount)	72600	15,000		15,000
from 2009. Indicator: 1. National capacity strengthened to address natural	2.2	Pilot Crop Insurance Schemes in severe crop damage areas	x	х	х	х		WCD	UNDP	Unfunded	72600	15,000		15,000
resources management issues; 2. No. of households/communities/farmers	2	Capacity of WCD staff strengthened in the fie	ld of	COI	nser	vatl	on c	onflict resolution						
benefitted through various natural resources management interventions Target: 1.1 At least 3 staff trained in HWC conflict resolution	1.1	Short term training on conservation conflic resolution.	t x	х	x	x		WCD	UNDP	RR (includes 10,000 unfunded)	75700	15,000		15,000
and database mgt.	3	Sustainable use of natural resources promote	ed th	rou	gh (CBN	RM							
2.1 2 Gewog Conservation Committee formed for crop and livestock insurance scheme (Sex disaggregated data); 2.2 Solar powered electric fencing constructed. 2.3 Pilot crop insurance scheme initiated in one site.	3.1	Support to Ada Rukha cane and bamboo management groups and Punakha valley Pangtse oil management groups in product development and marketing.			x			WCD	UNDP	Unfunded	72100	5,000		5,000
	4	Crop damage reduced through use of innova	tive	tec	hnol	logi	es							
	4.1	Construct solar electric fence in south eastern part of Bhutan to combat crop damages						WCD	UNDP	RR (includes 20,000 unfunded)	72100	40,000		40,000
Total												90,000	1	90,000
	Bhuta	n Climate Summit 2011												
5.2.3 Disaster/climate risk reduction mainstreamed	1	Conference preparation including expert ground	up m	eet	ings	and	1 CC	summit supported	<u> </u>			· · · · · · · · · · · · · · · · · · ·		
into national policies and plans Indicator: Number of plans mainstreaming disaster risk	1.1		х		x			MoAF	UNDP	RR	75700	27,500	-	27,500
reduction and management. Target: Sub-regional climate summit hosted in Bhutan in October 2011.	1.2	Support to conference preparation from APRC.		х	х			MoAF	UNDP	APRC	Unfunded	172,500	-	172,500
Total												200,000	-]	200,000

EXPECTED CP OUTPUTS and indicators including 18 months' targets		PLANNED ACTIVITIES		21	MEF	RAM	[=8h]	RESPONSI	BLEF	PARTY	PLANNED E	NUDGET			
	List all activities including M&E to be undertaken during the year towards stated CP outputs Q1						2/11	² Implement 12 Partner	Implementing Partner		Source of Funds	THE RESERVE THE PARTY OF THE PA	Amount (US\$) 2011	2012	Total
	Assu	ance activities	The state of the s										35 P. 10	IOIal	
	1	Monitoring field visits	T	х		х	\neg			Τ		1	Т — т		
	2	On-site review (once a year)	1-	╁	x		\dashv	\dashv			In 2011:	In 2011:			
	3	Quarterly, mid-year and annual review meetings	х	x	x	х	x	DAMC, IL & HWC, N		UNDP NIM	UNDP RR (3,000); GEF (2,000) In 2012; GEF (2,000)	Travel (4,000)/ Workshop (1,000) In 2012: Travel (2,000)	5,000	2,000	7,00
Total Grand total													5,000	2,000	7,00
FAO													1,376,307	80,578	
AU UNDP RR (Poverty unit) UNDP RR (Environment unit) UNDP OR (GEF) Unfunded Total													788,721 126,640 62,500 170,946 227,500 1,376,307	55,000 25,578 - 80,578	788,721 181,640 62,500 196,522 227,500 1,456,888

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Agreed by the Implementing Partner:

Shorub Gyaltshen
Secretary
Ministry of Agriculture and Forest

Agreed by the Royal Government of Bhutan:

Mr. Karma Tshiteem
Secretary
GNH Commission

Agreed by FAO:

Ms. Buithi Lan Representative FAO Date Agreed by UN Agencies:

Ms. Claire Van der Vacren UN Resident Coordinator und UNDP Resident Representativa

Dare: 15 Feb 1011