



International Workshop on
Multiple Use Water Systems (MUS) for
Climate Resilience



**Benefits of MUS on Livelihoods and
Sustainability of Drinking Water Schemes**

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PRESENTATION HIGHLIGHTS

BACK GROUND INFORMATION-MID & FAR WEST HILLS

DEFINING MUS

MUS in RVWRMP

MUS BENEFIT CHAIN

MUS INCOME & PERFORMANCE TREND

FUNCTIONALITY-MUS vs DWS

BENEFITS OF MUS

LIMITATIONS & RECOMMENDATIONS

BACKGROUND INFORMATION—MID & FAR WEST HILLS



Always fighting the challenges of remoteness, rugged terrain, food insecurity, water scarcity, climate change and the post-conflict legacy.

Poverty from 64.1% (Bajura) to 33.6% (kailali) against national average poverty rate of 25.16 %

Of the total HHs, 18% in Mid and 31.2% in FWDR are dependent on leasehold land for basic food security

Source: HDIN, UN 2011; NLSS 2011; MoAD Nepal website

BACKGROUND..... Food security situation at a glimpse

District/ Region	EDIBLE PRODUCTION (metric tons - mt)						Total edible	Requirement	Balance
	Rice	Maize	Wheat	Millet	Barley	Buck-wheat	Prod'N (mt.)	(mt)	(+,-)
Bajura	4119	933	5173	2115	414	9	12762	27169	-14407
Bajhang	11171	3366	17327	1662	761	3	34291	38813	-4522
Darchula	5976	7741	10820	627	462	64	25690	25973	-283
➡ Far west Mountain	21265	12040	33319	4404	1637	77	72743	91955	-19212
Achham	16878	4951	19196	2680	154	0	43858	53068	-9210
Doti	12298	680	27475	4707	65	7	45232	42773	2459
Baitadi	7715	11858	19388	741	444	0	40146	51443	-11297
Dadeldhura	8911	4211	15411	210	57	0	28800	29148	-348
➡ Far West Hills	45802	21700	81470	8338	720	7	158036	176432	-18396

Source: MoAD, GoN (Statistical information 2012/13)

DEFINING MUS

Multiple-use water services (MUS) describe a participatory, integrated, and poverty-reduction focused approach that takes a community's diverse water needs as the starting point for providing services.

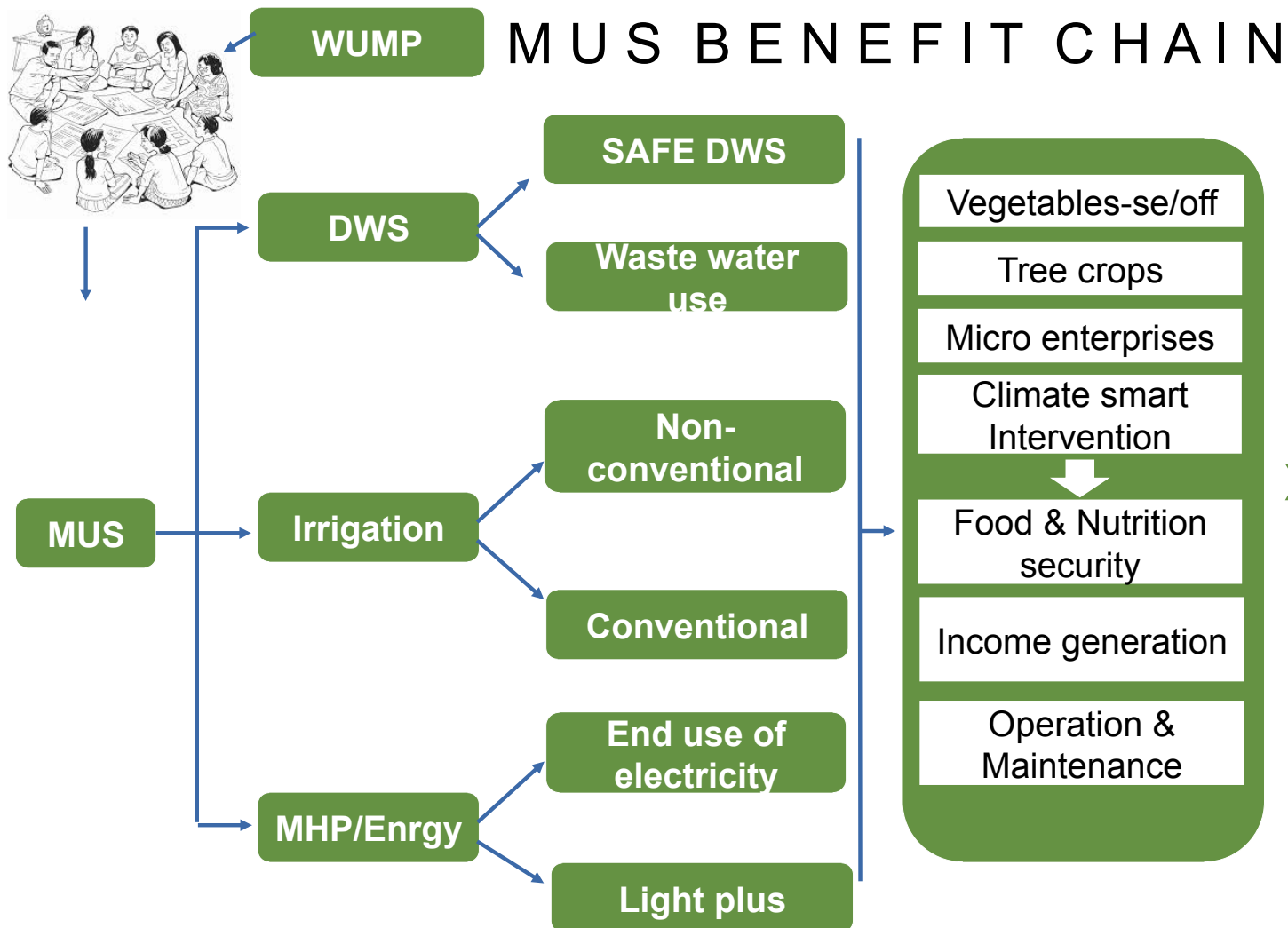
Multiple-use water services move beyond the conventional sectoral barriers of the domestic and productive sectors and provide for all water needs in a community.

Source: International Development Enterprises (IDE), the Challenge Program on Water and Food (CPWF), and the International Water Management Institute (IWMI)

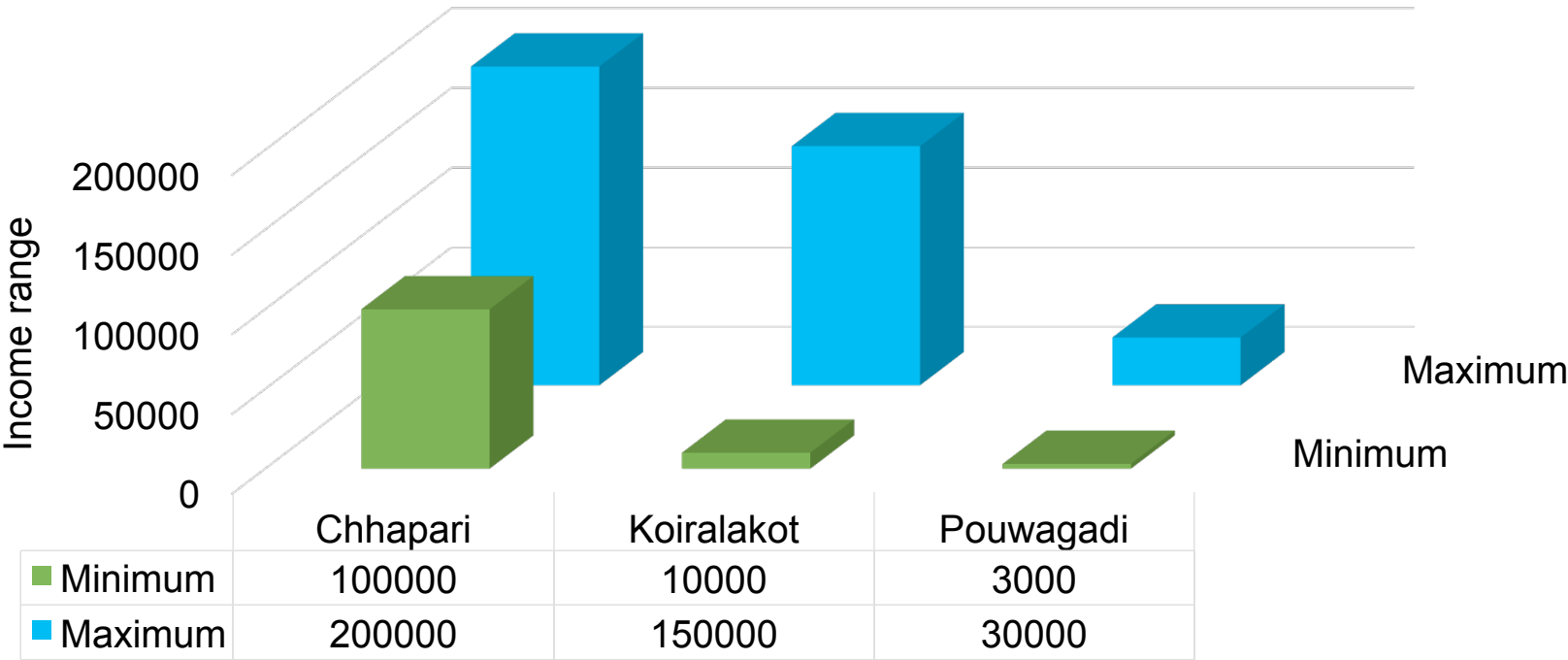
MUS in R V W R M P

A community based system that is demand driven (Water Use Master Plan) and meets water needs integrating it with safe drinking water, irrigation and energy or any two of the above systems ensuring productive use for better livelihoods and sustainability.



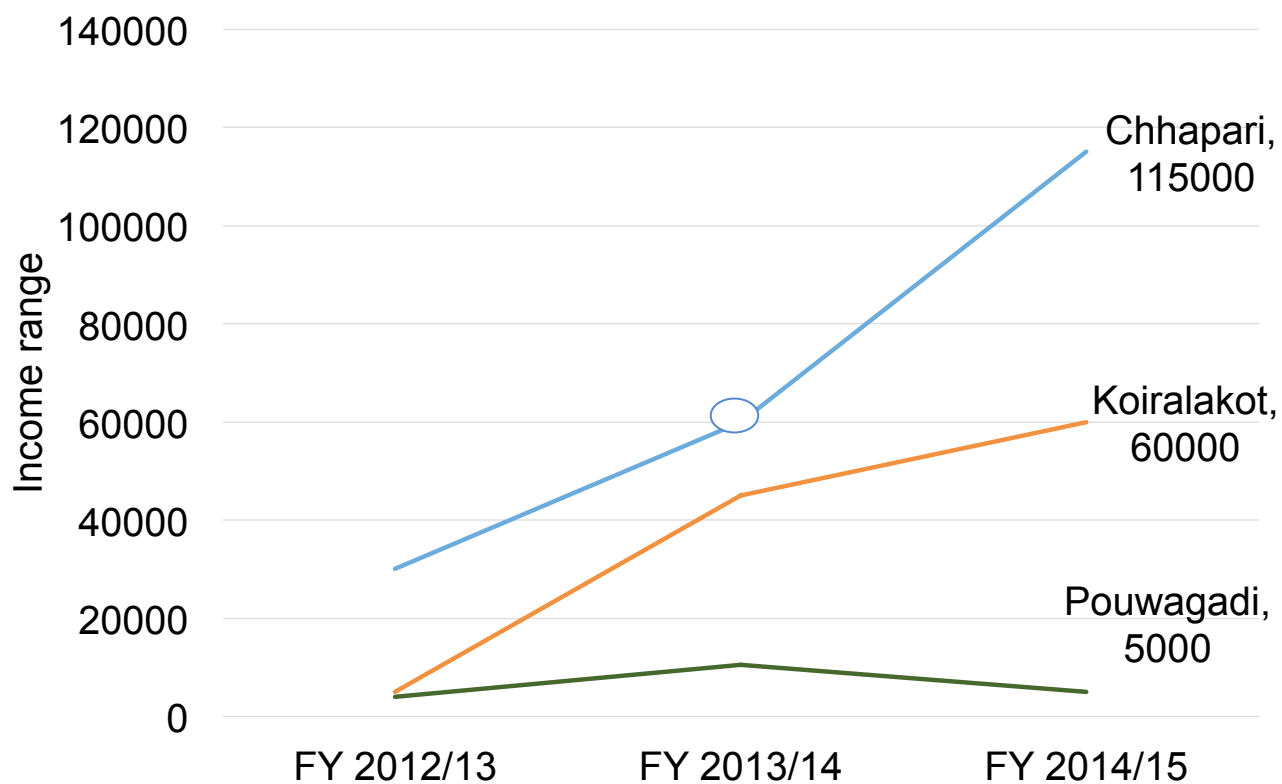


INCOME GENERATION WITH MUS-DEC 015



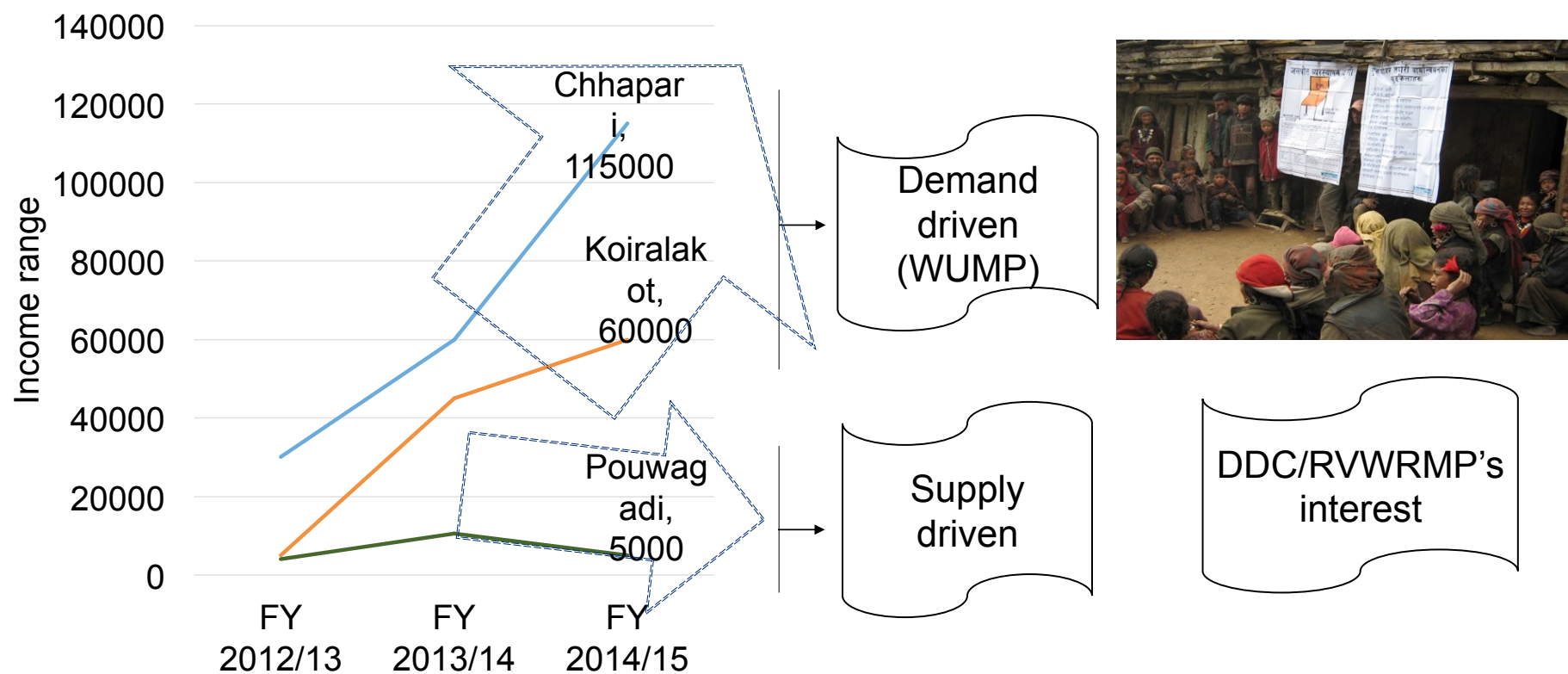
Source: LPs/LFs

TREND ANALYSIS OF AVERAGE INCOME IN MUS



Source: LPs/LFs

PERFORMANCE OF MUS



FUNCTIONALITY STATUS – MUS vs DWS

VDC	Name	Fully functional	Regular Tariff	Payment to VMW
Chhapari	Danda MUS	Yes	yes	Cash
Koiralakot	kalipachi MUS	Yes	yes	Cash
Pawagadhi	Khairadi MUS	Yes	yes	Cash
AJAYMERU	Gharkatte DWS	No	No	Cash
ALITAL	Hamtad DWS	No	No	No
ASHIGRAM	Chira DWS	No	No	Kind

Source: Endline survey

BENEFITS OF MUS

Ownership within the community realized

Crop diversification & intensification

Increase in greeneries-fruits, fodder, NTFPs

Technology promotion-local resource
utilization

More income

Support to food security and nutrition

Regular operation and maintenance



BENEFITS OF MUS

Employment opportunities created

Harmony among stakeholders increased



MUS Creations



MUS & HOME GARDEN

at least
Vegetables
Spices
Fodder
Fruits



& THUS



MUS IS 'GOD'

LIMITATIONS / CHALLENGES

Supply driven MUS demands input again and again

Same system demand in other communities

Overflow of resources distribution for publicity

Challenge in sustaining micro enterprises

System management requires more attention

RECOMMENDATIONS

MUS should be in the priority of GoN-could it be even basic MUS.

MUS to be implemented only on demand basis

Strong coordination among stakeholders needed before implementation

Very strong system management mechanism to be developed

Capacity building-technical and managerial HRs

THANK YOU