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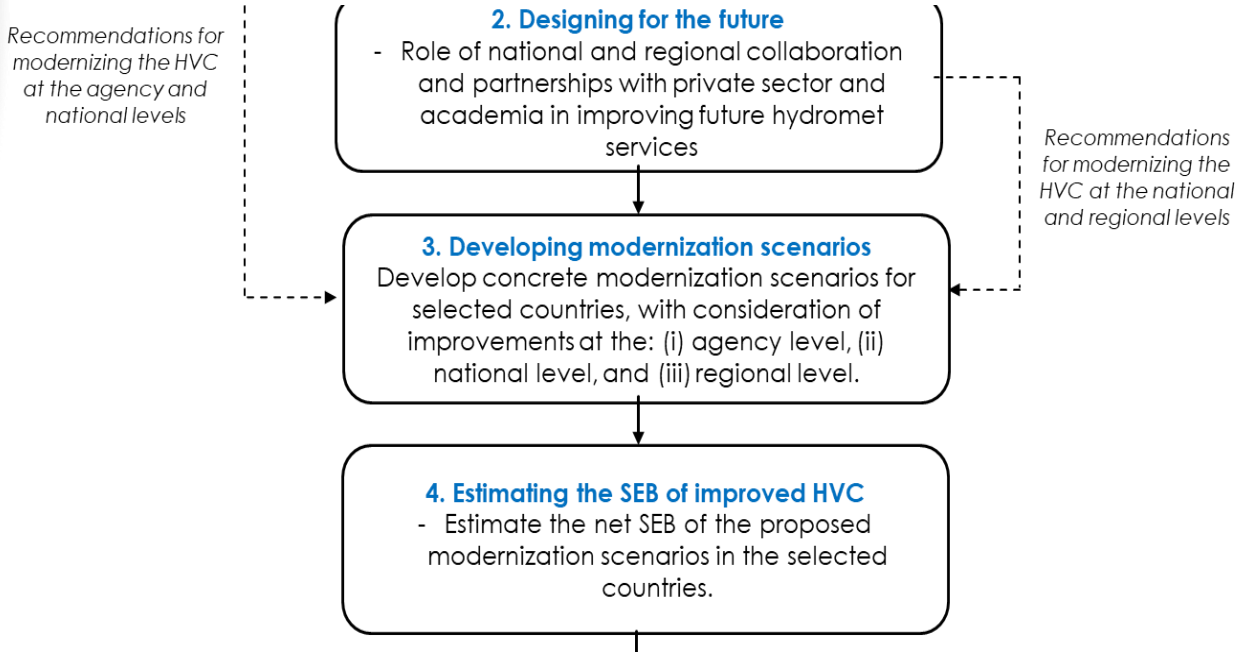
South Asia

Enhancing Benefits from the Hydromet Value Chain in South Asia

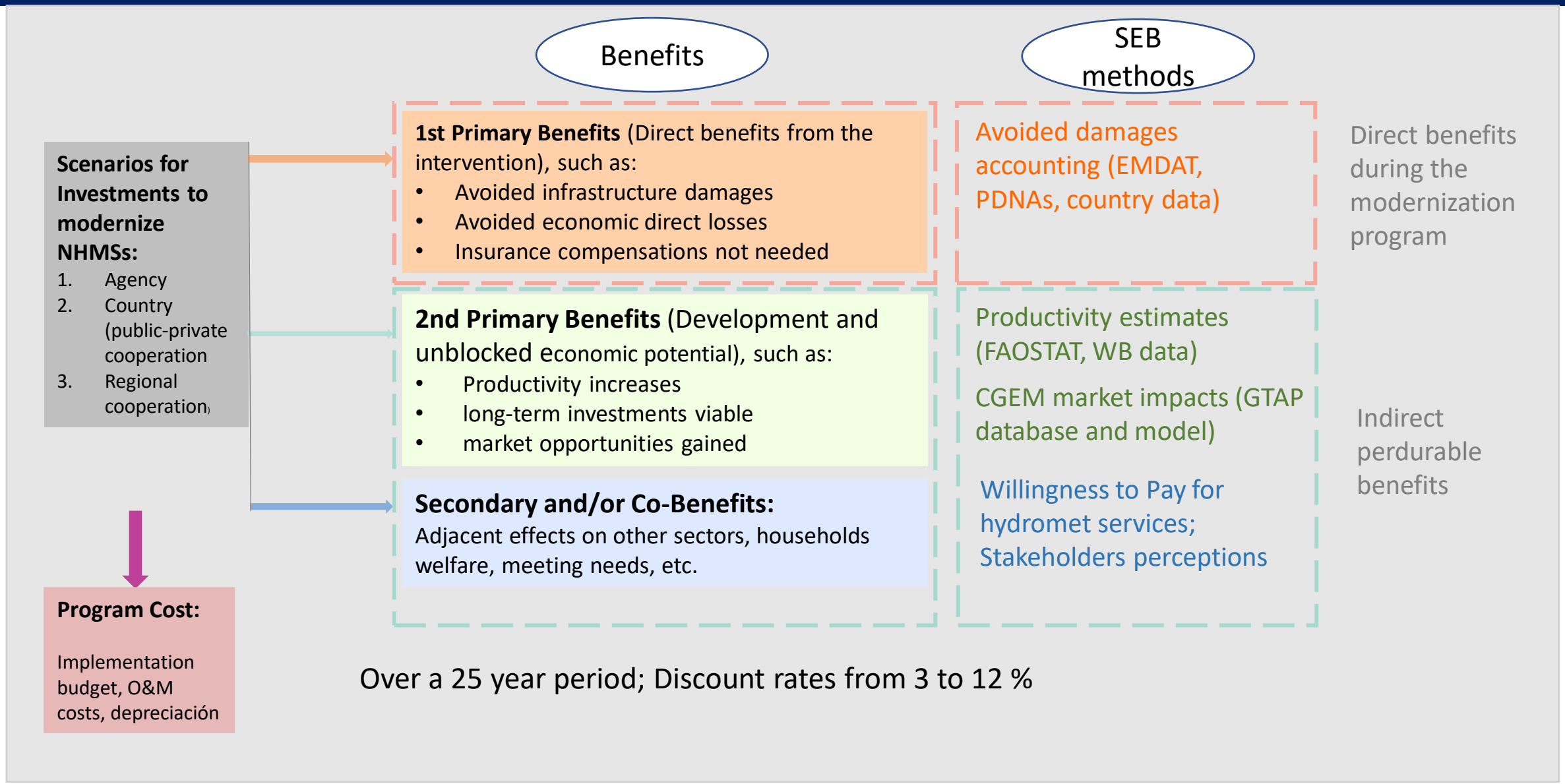
South Asia Hydromet Forum III November 16, 2021

Valuing Hydromet, Early Warning and Climate Services Motivation and Objectives

- To answer the question "***what do the hydromet investments of the future in South Asia look like?***" and provide recommendations to policymakers on how to realize the potential benefits of investing and enabling transformative hydromet services
- Case Studies in Bangladesh and Sri Lanka
- demonstrating the economic benefits of modernization and contribution to climate adaptive planning



Study Framework and Methodology



Findings for Bangladesh and Sri Lanka: Hydromet Investments pay off!

High NPV and BCR: **$1 invested in improved services yields $6.1 to $13.1 in Bangladesh and $5.6 to $11.6 in Sri Lanka**

Bangladesh

Sri Lanka

	Scen 1		Scen 2		Scen 3	
Discount rate (%)	**3.0**	12.0	**3.0**	12.0	**3.0**	12.0
Present Value of Costs						
Investment	78.3	58.0	81.5	60.6	78,9	59.4
Depreciation&Replacement	152.1	104.3	158.4	108.9	153.3	106.7
Management	23.0	11.0	12.0	5.7	11.5	5.5
O&M	34.5	16.6	35.9	17.3	34.5	16.6
Total costs PV	287.9	189.2	287.8	192.5	278.3	188.3
Present Value of Benefits						
Households' welfare	60.1	21.7	68.0	24.5	71.6	25.79
Unblocked productivity	195.1	70.3	216.2	77.9	232.8	83.9
Drought management	1483.8	534.7	1582.8	570.4	1681.7	606.0
Flood avoided damages	1421.2	512.2	1510.9	544.5	1734.5	625.0
Total benefits PV	3160.4	1138.9	3377.9	1217.3	3720.6	1340.8
Net Present Value	**2872.5**	**949.0**	**3090.1**	**1024.8**	**3442.3**	**1152.5**

	Scen 1		Scen 2		Scen 3	
Discount rate (%)	**3.0**	12.0	**3.0**	12.0	**3.0**	12.0
Present Value of Costs						
Investment	45.8	36.5	47.1	37.5	50.2	39.7
Depreciation&Replacement	89.0	65.61	91.6	67.5	97.5	71.4
Management	6.58	3.1	6.8	3.2	7.2	3.5
O&M	19.73	9.47	20.3	9.6	21.7	10.4
Total costs PV	161.2	114.8	165.8	118.0	176.5	125
Present Value of Benefits						
Households welfare	227.7	82.1	255.2	91.9	257.5	92.8
Increased productivity	312.5	112.6	342.7	123.5	369.1	133.0
Drought management	609.4	219.6	676.5	243,8	682.6	246.0
Flood avoided damages	633.7	228.4	710.7	256.1	732.8	264.0
Total benefits PV	1783.3	642.6	1985.0	715.3	2042.0	735.9
Net Present Value	**1622.1**	**527.9**	**1819.2**	**597.3**	**1865.5**	**610.9**

Thank you!

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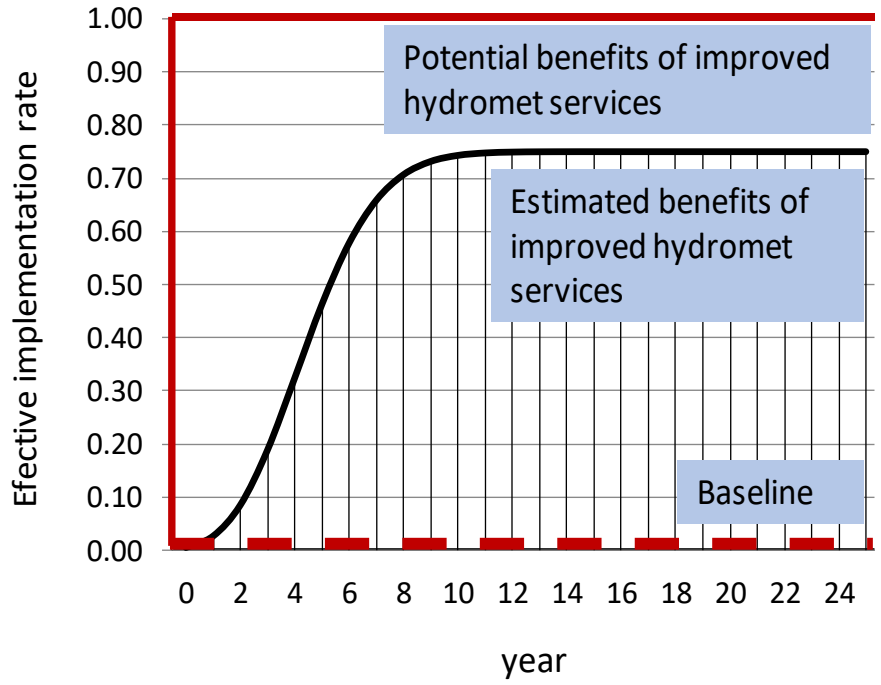
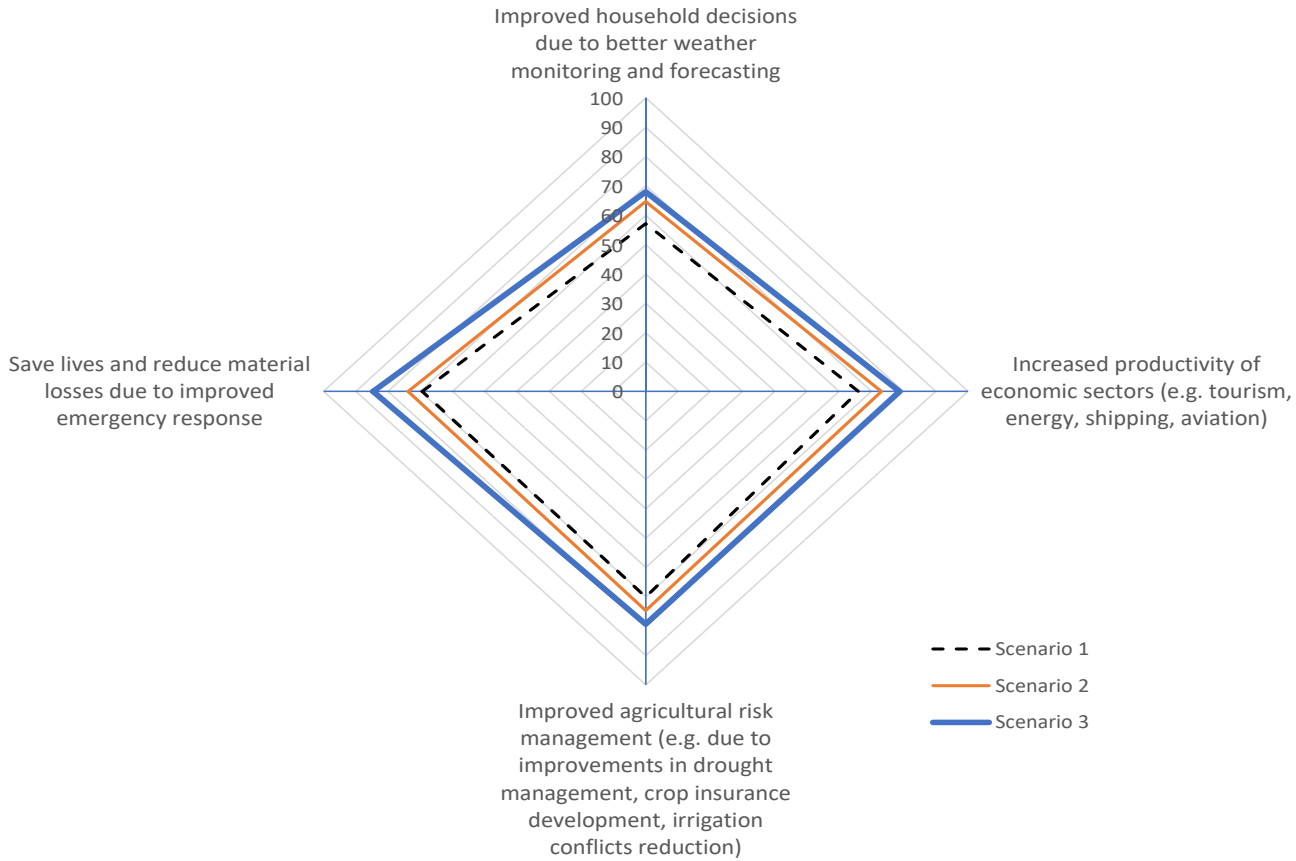
Stakeholders' perception is key for achieving value

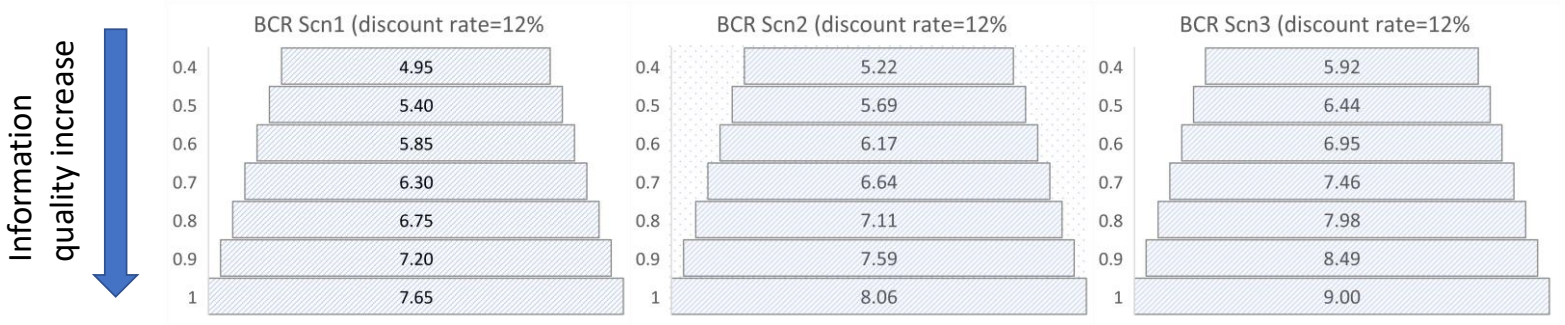
- Bangladesh end-users perceptions on the effective implementation rate for the 3 scenarios:
  - Agency
  - Country
  - Regional





Enhancing the Quality of Services is critical for Generating Value

Bangladesh



Sri Lanka