

Nature-based solutions and climate-resilient WASH (water supply, sanitation, hygiene)

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**WATER
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FUTURES

Achieving SDG6 in a Changing Climate



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Nature-based solutions....?

Actions

....that protect, manage or restore natural or modified ecosystems (or ecosystem processes)

....which address societal challenges effectively and adaptively, and so

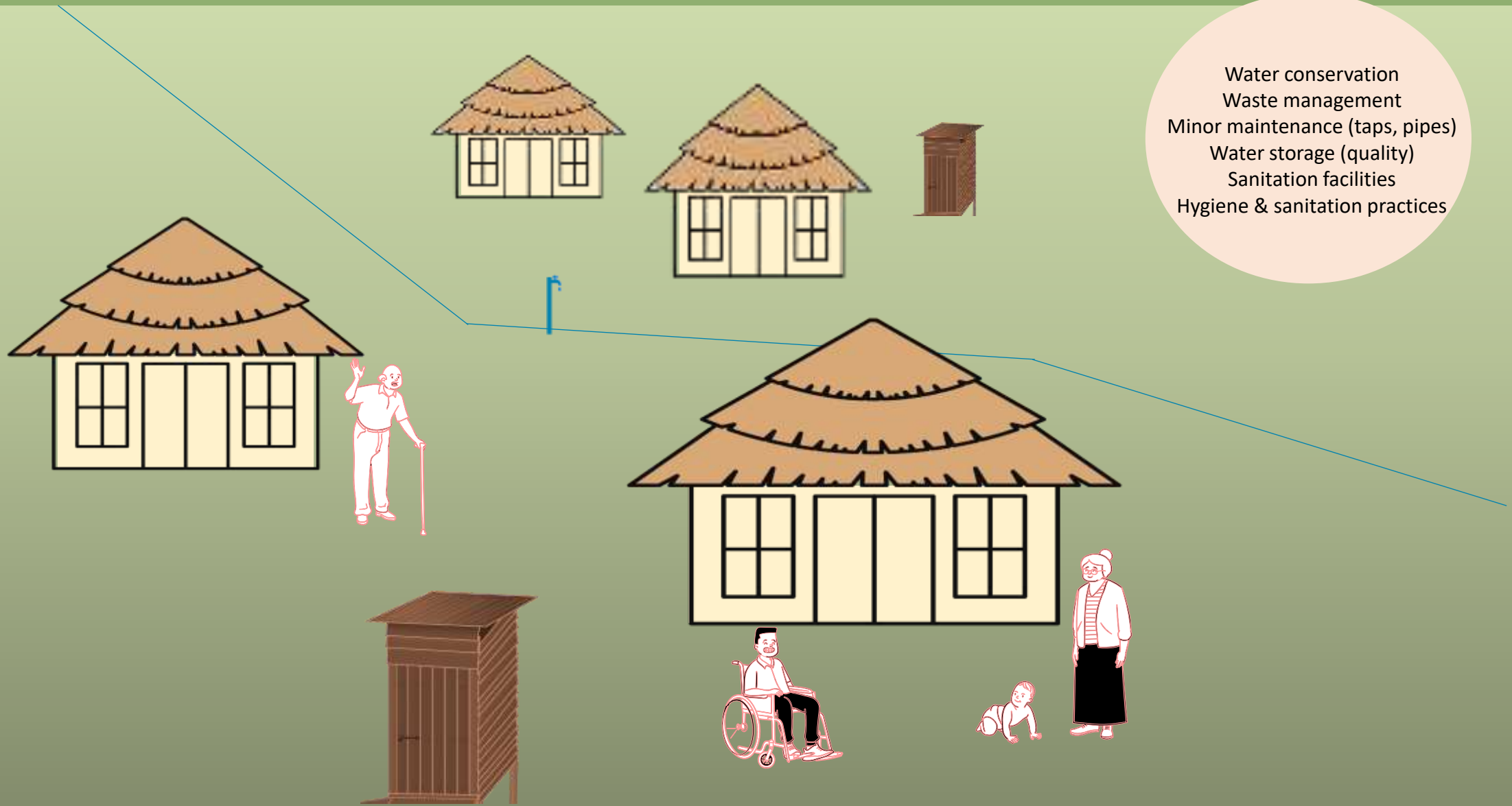
....provide biodiversity benefits AND human well-being benefits (often several sectors)

(IUCN, 2016)

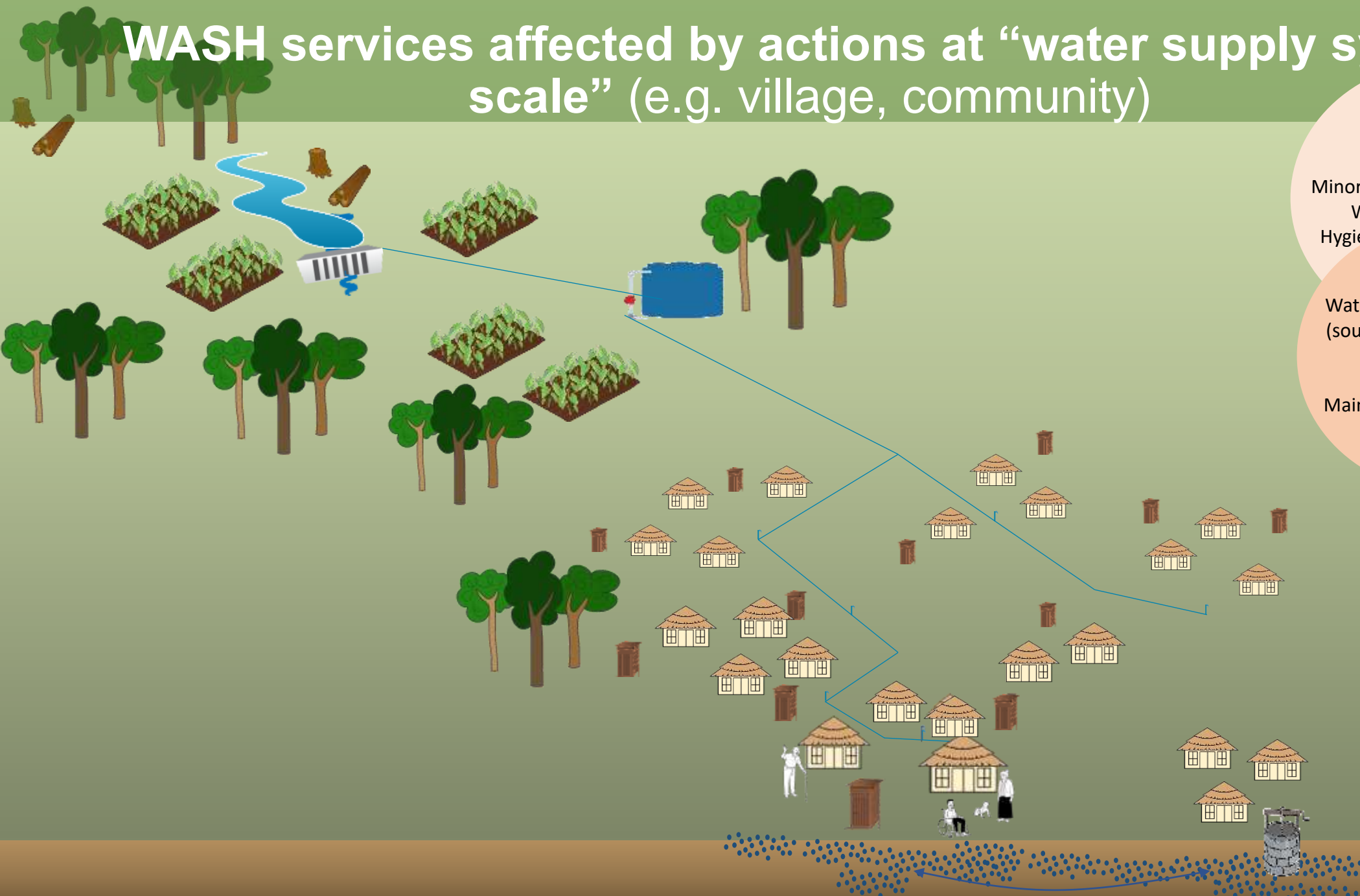


WASH services affected by actions at the access-point scale

e.g. Individuals, households, groups of households



WASH services affected by actions at “water supply system scale” (e.g. village, community)



- Water conservation
- Waste management
- Minor maintenance (taps, pipes)
- Water storage (quality)
- Hygiene practices

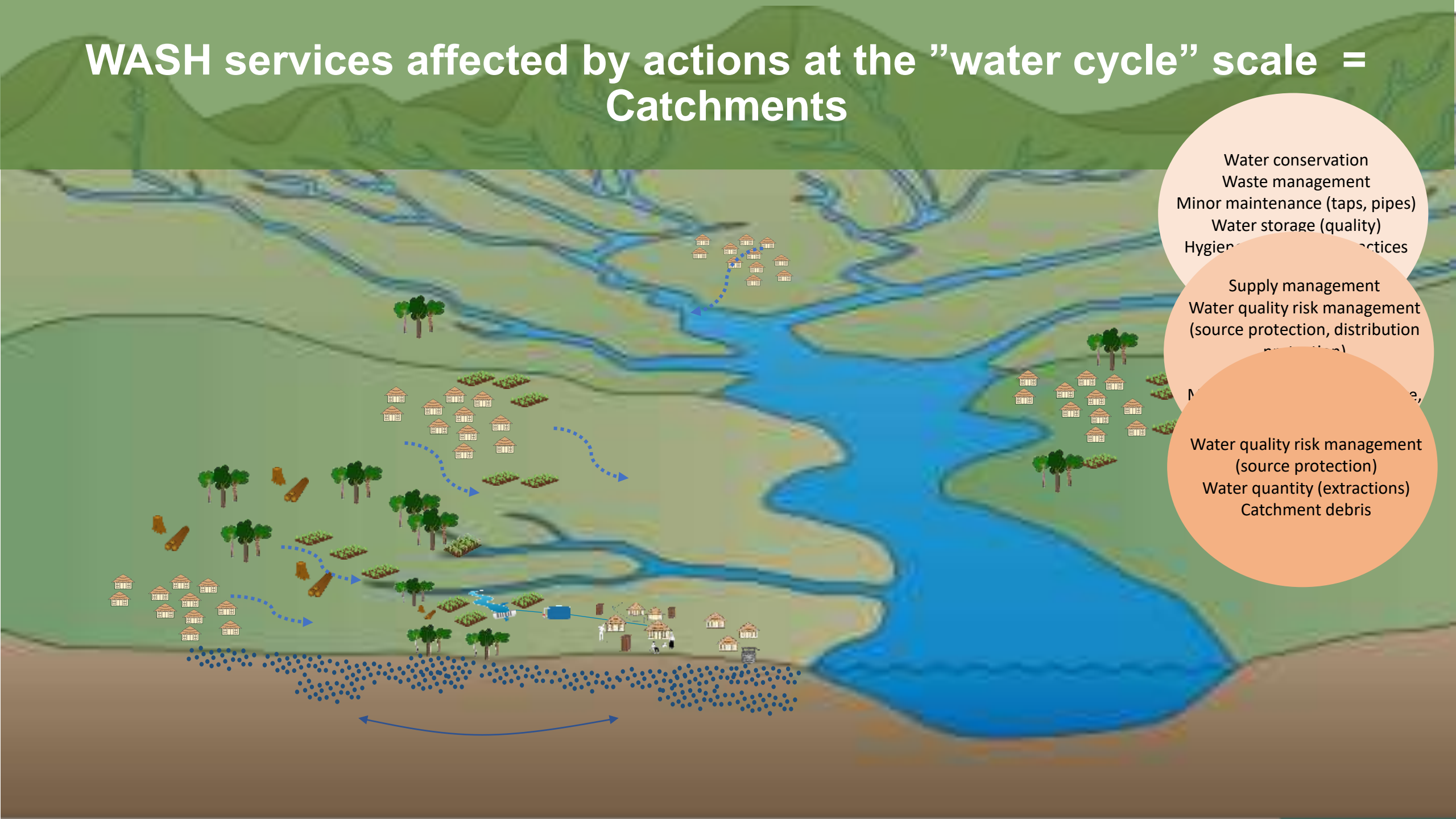
- Supply management
- Water quality risk management (source protection, distribution protection)
- Waste management
- Maintenance & repair (reactive, proactive)
- Financing systems

WASH services affected by actions at the "water cycle" scale = Catchments

Water conservation
Waste management
Minor maintenance (taps, pipes)
Water storage (quality)
Hygiene practices

Supply management
Water quality risk management
(source protection, distribution
protection)

Water quality risk management
(source protection)
Water quantity (extractions)
Catchment debris



Play video: Nature-based solutions for climate-resilient WASH

<https://youtu.be/YkDXZBgRkaE>



Actions that support Conservation outcomes

e.g. species reproduction programs,
protected areas

Nature-based solutions that support nature and direct human benefits

e.g. NbS producing other, non-WASH outcomes): e.g. soil protection supporting soil ecosystems and food production

Actions that support WASH outcomes

e.g. sewer systems

Actions that support climate-resilient WASH outcomes

e.g. storm-resilient rainwater harvesting; flood-resilient water infrastructure

Actions that support Conservation outcomes

e.g. species reproduction programs, protected areas

Actions that support WASH outcomes

e.g. sewer systems

Actions that support WASH and conservation outcomes

e.g. water-use efficiency for water supply and local water ecosystem health; sanitation that protects ecosystem and human health

Nature-based solutions that support nature and direct human benefits

e.g. NbS producing other, non-WASH outcomes): e.g. soil protection supporting soil ecosystems and food production

NbS that support conservation and WASH outcomes

NbS that support both conservation and climate-resilient WASH outcomes

e.g. (depending on design & local situation): wastewater treatment wetlands; revegetation of catchments for protection of WASH infrastructure (floods, erosion); revegetation of riverbanks for water supply quality improvements

Actions that support climate-resilient WASH outcomes

e.g. storm-resilient rainwater harvesting; flood-resilient water infrastructure

Table discussions

1. Under which situations might NbS support improved 'climate resilience' of WASH, and which not?
(discuss some examples)
2. What would WASH actors need to do to better incorporate NbS thinking and options into their work?

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