Learning Outcomes DRAFTED by Beth

(Beth's ideas as a dialogue partner)

These DRAFT learning outcomes were revised and expanded by the Maasai Stakeholders on 26 April 2024 in light of the core Maasai values, their expertise, and their Indigenous knowledge.

As a result of this lesson, the participants will:

	1. Bible / Ecotheology:	2. Worldview / traditional	3. Climate science /	4. Hope instead of climate anxiety
	Creation care	environ. knowledge (TEK)	environmental knowledge	
Cognitive	Know that God made	Understand that the	Know the difference	Hope in God, the God of Hope
	the world, and it was	"creation triangle" of God,	between climate and	Understand that God is the God of hope.
)gu	very good (Genesis	humans, and non-human	weather	Know that God is the Creator and Sustainer of the world, who
	1:31a); and God loves	creation is similar in the	 Know that greenhouse 	will never abandon God's creation but will reconcile <i>all</i> things to
A. KNOW	it (John 3:16).	Bible (OT) and the Maasai	gases (GHG) are the	Jesus Christ. Colossians 1:15–20
	 Understand that we 	worldview	primary source of human-	Know that "hope" in the Bible is not wishful thinking, but the
 	have been given a	Know that the Maasai TEK	caused climate change.	hopeful expectation that what God has promised will be fulfilled
	mandate to look after	are good ways to care for	Know what are the	(and promised glory revealed). Romans 8:19–25
	what God has made	creation	sources of GHG	Resilience of God's creation
	(Genesis 2:15).	• Identify 3 (of several) core	Know the primary effects	Realize that there is amazing resilience in God's creation.
	Understand that the	Maasai ways of TEK that	of climate change	Despite huge and ongoing effects of human-caused climate
	world has gone wrong	are good for the	Know the difference	change, we are called to faithfully continue the creation care
	because of human sin	environment	between mitigation and	mandate of Genesis 2:15 to nurture the restoration.
	(especially seen in	• Identify 2 (of several)	adaptation	Know that creation care works, we need more of it. So that many
	selfishness and	challenges that prevent	 Know important ways of 	people working together in little ways can make a big change.
	greed).	good TEK	adaptation appropriate for	The cosmic power of the Holy Spirit for transformation and re-
	Realize that Jesus died		pastoralist Maasai. (There	creation
	for the whole world—		is little mitigation that can	Understand that the greatest challenge is not lack of science,
	not just humans		be done in Maasailand.)	technology, or resources, but rather greed and apathy—and
	Know that God will			these need a spiritual transformation by the power of the Holy
	restore creation when			Spirit.
	Jesus Christ returns.			Know that the power that raised Christ from the dead is
	Romans 8:21			available to us who believe. Ephesians 1:19–20
				Know that God will restore creation when Jesus Christ returns.
	See additional "KNOW"	See additional "KNOW"	See additional "KNOW"	Romans 8:21; Revelation 21:1–5
	Bible texts in the right-	resources in the right-hand	resources in the right-hand	
	hand box on p. 3 of this	box on p. 4 of this	box on p. 5 of this	See additional "KNOW" Bible texts and other resources in the
	document.	document.	document.	right-hand box on p. 6 of this document.

	1. Bible / Ecotheology:	2. Worldview / traditional	3. Climate science /	4. Hope instead of climate anxiety
	Creation care	environ. knowledge (TEK)	environmental knowledge	
. FEEL Affective	Blessed by God's	• Proud of the Maasai	• Equipped with	Encouraged by God's trustworthiness
	good creation	heritage of caring for	appropriate knowledge	Hopeful because of God's presence and faithfulness through
	• Honored to be	creation	• Empowered with	all the challenges of climate change
	commissioned by God	Committed to continue	knowledge for climate	Eager to be part of God's work of transformation
	to care for creation	the Maasai ways of caring	change mitigation and	
	Committed to care for	for creation	adaptation in Maasailand	
ω	God's creation	Concerned due to the	• Eager to make a	
		challenges that prevent	difference	
		good TEK practices		
C. DO Behavioral	 Identify one important 	Identify one important	 Identify 3 ways that one 	Write a Psalm/song/poem that proclaims God's faithfulness
	"take away" concept	"take away" concept	can make a difference in	Identify/memorize 3 Bible verses that give hope
	Share one important	Share one important	climate change mitigation	Make a bookmark with one of the Bible verses to keep in a Bible.
	concept with a	concept with a	 Identify 3 ways that one 	
	friend/family member	friend/family member this	can make a difference in	
	this week	week	climate change	
	• List 5 ways that caring	List 3 ways you can	adaptation	
	for God's creation can	continue to do all the	Write a song/poem that	
	reduce climate	good practices of TEK in	can share this important	
	change	Maasailand	information	

2024.04.22

1. Bible/Ecotheology: Creation care (DRAFT)

As a result of this lesson, the participants will:

- 1. Know that God made the world, and it was very good (Genesis 1:31a); and God loves it (John 3:16).
 - 1.1. God loves the cosmos—the world—not just the people of the world.
 - 1.2. The whole earth is YHWH's. Psalm 24:1–2
- 2. Understand that we have been given a mandate to look after what God has made (Genesis 2:15).
 - 2.1. We are to be God's image (Genesis 1:27), a representative to look after and take care of the world.
 - 2.2. If we love God, then we should love what God loves.
- 3. Understand that the world has gone wrong because of human sin (especially seen in selfishness and greed).
 - 3.1. The root of our ecological crisis is our broken relationship with our Creator. (Genesis 3:17)
 - 3.2. We are our brother's and sister's keeper. (Genesis 4:9–10) Natural resources are to be shared for the good of all instead of greedy consumption.
- 4. Realize that Jesus died for the whole world—not just humans; Jesus is reconciling *all* things unto himself.
 - 4.1. Jesus's blood was shed on the cross, not just for people. (Colossians 1:15–20)
 - 4.2. Creation care is part of the Lordship of Christ.
- 5. Know that God will restore creation when Jesus Christ returns.
 - 5.1. Creation will be free from decay. (Romans 8:19–21)
 - 5.2. There will be a renewed heaven and a renewed earth. (Revelation 21:1)

Bible Texts (all references in TNIV)

- Genesis 1:31a God saw all that he had made, and it was very good. And there was evening, and there was morning—the sixth day.
- **John 3:16** For God so loved the world that he gave his one and only Son, that whoever believes in him shall not perish but have eternal life.
- Psalm 24:1–2 The earth is the LORD's, and everything in it, / the world, and all who live in it.
- Genesis 2:15 The LORD God took the man and put him in the Garden of Eden to work (עָבַד, work and serve) it and take care of it.
- **Genesis 1:27** So God created human beings in his own image, / in the image of God he created them; / male and female he created them.
- Genesis 3:17 "Because you listened to your wife and ate from the tree about which I commanded you, 'You must not eat of it,' / "Cursed is the ground because of you; / through painful toile you will eat of it / all the days of your life."
- Genesis 4:9–10 Then the LORD said to Cain, "Where is your brother Abel?" / "I don't know," he replied. "Am I my brother's keeper?" / The LORD said, "What have you done? Listen! Your brother's blood cries out to me from the ground.
- Colossians 1:15–20 The Son is the image of the invisible God, the firstborn over all creation. For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together. And he is the head of the body, the church; he is the beginning and the firstborn from among the dead, so that in everything he might have the supremacy. For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross.
- **Romans 8:19–21** The creation waits in eager expectation for the children of God to be revealed. For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that the creation itself will be liberated from its bondage to decay and brought into the freedom and glory of the children of God.
- **Revelation 21:1–5** Then I saw a new [καινός = "renewed"] heaven and a new [καινήν = "renewed"] earth... And he who was seated on the throne said, "Behold, I am making all things new [καινὰ= "renewed"]." (Καινός is different from νέος. The latter is more the sense of brand new, but it not used here. See N.T. Wright, "Resurrection and the Renewal of Creation 11/16/2018" https://www.youtube.com/watch?v=_7watmvWVN4; and https://atyourservice.arocha.org/en/the-radical-renewal-of-creation-and-the-new-earth/)

2. Maasai worldview and traditional environmental knowledge (TEK) (DRAFT)

As a result of this lesson, the participants will:

- 1. Understand that the "creation triangle" of God, humans, and non-human creation is similar in the Bible (OT) and the Maasai understanding of the world (worldview)
- 2. Know that the Maasai TEK are good ways to care for creation
- 3. Identify 3 (of ~ 5) core Maasai ways of TEK that are good for the environment
- 4. Identify 2 (of ~ 5) challenges that prevent good TEK

See Beth's handout "Pastoralist Maasailand Creation Care: Climate Change MITIGATION and ADAPTATION in Maasailand" for citations for information to the right and the Issues for Concern (i.e., challenges).

1. Semi-nomadic pastoralism for sustainable pasturing of cattle

- a. "...pastoralism was...a highly productive system of land use that was more compatible with wildlife conservation than other rural production systems."
- b. "Once vilified as a destructive land use, since the late 1980s pastoralism has come to be understood as the livelihood system most compatible with wildlife. Unlike agriculturalists, who directly compete with wildlife habitat for productive land, pastoralists typically manage their rangelands in ways that support both wildlife and livestock."
- c. "Pastoralism is the dominant livestock production system in most of Africa. Pastoral practices are based on local endogenous knowledge of both the environment and the animal. It is based on the continued capacity to adapt to a harsh environment, characterized by the scarcity, dispersion and variability of natural resources over vast territories."
- d. Making strategic and sustainable use of land areas where, "Farming in the arid and semi-arid zones is socially unacceptable (low food security because of crop failure risks) and economically not feasible." Arid lands "...are unsuitable for rainfed agriculture (the driest spot [in Monduli District] is Mfereji village in the rift valley with about 200 mm rainfall annually). Soils are generally shallow and not fertile."

2. Sustaining biodiversity

- a. Not hunting wild animals or poaching, because they are not used as food sources.
- b. Even lion hunting, a former prestigious act for a warrior, is no longer supported.

3. Protecting ecosystems

- a. "Manzano and others pointed to a growing body of scholarly research demonstrating what the Maasai had long known: that their management of the land did not degrade the Serengeti ecosystem but had actually helped sustain and even create it—the grasslands the Maasai had cultivated for hundreds of years were the same grasslands that many wild animals needed to thrive."
- b. Not burning for slash and burn agriculture. Perhaps limited burns for pest management.¹
- c. Not cutting down wood, in general, no logging industry; no mangrove destruction. Rather scrounging for deadwood for fires.
 - d. Not making charcoal.
- 4. Environmentally sustainable livelihoods: Not engaged in carbon generating industries/agro-business/etc.
 - a. No CO² producing industry. Cows do produce methane, CH₄.
 - b. Not using artificial fertilizers that cause phosphate and nitrate run off and water pollution. Not using herbicides and pesticides used in agro-business.
 - c. No blast fishing.
 - d. No mining industries that bring arsenic, lead, copper pollution or contamination to groundwater.
 - e. No hydrocarbon oil spills from shipping refuse on the ports and plastic wastes from land-based sources as well as excess nutrients from wastewater disposal in the ocean.
- 5. Traditional Maasai pastoralists do not significantly contribute to the environmental challenges of urban cities.

¹ Maasai research participant Lemayian with Elness-Hanson, "Dialogue for Qualitative Research," 19 Feb 2020.

3. Climate science/ environmental knowledge (DRAFT)

As a result of this lesson, the participants will:

	1.	Know th	ne difference	between o	climate a	and weat	her
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- 2. Know that greenhouse gases (GHG) are the primary source of human-caused climate change.
- 3. Know what are the sources of GHG
- 4. Know the primary effects of climate change as a "threat multiplier" affecting extreme weather, pollution, poverty, crop damage, hunger, disease, refugees. The poor are most impacted.
- 5. Know the difference between mitigation and adaptation
- 6. Know important ways of adaptation appropriate for pastoralist Maasai. (There is little mitigation that can be done in a traditional Maasai context.)

See "Climate Change Mitigation and Adaptation: Simple Guide to Schools in Africa" (UNESCO, United Nations Educational, Scientific and Cultural Organization, 2019), https://unesdoc.unesco.org/ark:/48223/pf0000372168.

4. Hope instead of climate anxiety (DRAFT)

As a result of this lesson, the participants will:

Hope in God, the God of Hope

- Understand that God is the God of hope.
- Know that God is the Creator and Sustainer of the world, who will never abandon God's creation but will reconcile *all* things to Jesus Christ.
- Know that "hope" in the Bible is not wishful thinking, but the hopeful expectation that what God has promised will be fulfilled (and promised glory revealed). Romans 8:19–25

Resilience of God's creation

- Realize that there is amazing resilience in God's creation. Despite huge and ongoing effects of human-caused climate change, we are called to faithfully continue the creation care mandate of Genesis 2:15 to nurture the restoration.
- Know that creation care works, we need more of it. So that many people working together in little ways can make a big change. Jane Goodall, https://www.youtube.com/watch?v=LXXb5MjPbPI

The cosmic power of the Holy Spirit for transformation and re-creation

- Understand that the greatest challenge is not lack of science, technology, or resources, but rather *greed* and *apathy*—and these need a spiritual transformation by the power of the Holy Spirit.
- Know that the power that raised Christ from the dead is available to us who believe. Ephesians 1:19–20
- Know that God will restore creation when Jesus Christ returns. Romans 8:21; Revelation 21:1–5

(Some texts repeated from 1. Bible/Ecotheology: Creation Care learning outcomes)

- Colossians 1:15–20 The Son is the image of the invisible God, the firstborn over all creation. For in him all things were created: things in heaven and on earth, visible and invisible, whether thrones or powers or rulers or authorities; all things have been created through him and for him. He is before all things, and in him all things hold together. And he is the head of the body, the church; he is the beginning and the firstborn from among the dead, so that in everything he might have the supremacy. For God was pleased to have all his fullness dwell in him, and through him to reconcile to himself all things, whether things on earth or things in heaven, by making peace through his blood, shed on the cross.
- Romans 8:19–25 The creation waits in eager expectation for the children of God to be revealed. For the creation was subjected to frustration, not by its own choice, but by the will of the one who subjected it, in hope that 1 the creation itself will be liberated from its bondage to decay and brought into the freedom and glory of the children of God.

We know that the whole creation has been groaning as in the pains of childbirth right up to the present time. Not only so, but we ourselves, who have the firstfruits of the Spirit, groan inwardly as we wait eagerly for our adoption, the redemption of our bodies. For in this hope we were saved. But hope that is seen is no hope at all. Who hopes for what they already have? But if we hope for what we do not yet have, we wait for it patiently.

- Genesis 2:15 The LORD God took the man and put him in the Garden of Eden to work (עָבַד, work and serve) it and take care of it.
- **Ephesians 1:18–20** I pray that the eyes of your heart may be enlightened in order that you may know the hope to which he has called you, the riches of his glorious inheritance in his people, and his incomparably great power for us who believe. That power is the same as the mighty strength he exerted when he raised Christ from the dead and seated him at his right hand in the heavenly realms...
- Revelation 21:1–5 Then I saw a new [καινός = "renewed"] heaven and a new [καινήν = "renewed"] earth... And he who was seated on the throne said, "Behold, I am making all things new [καινὰ= "renewed"]." Interpretation N.T. Wright, "Resurrection and the Renewal of Creation 11/16/2018" https://www.youtube.com/watch?v=_7watmvWVN4
- Jane Goodall, "Hope is what enables us to keep going in the face of adversity" *The Book of Hope*, (2022). "I truly believe, and I'm not alone as a scientist, that we have a window of time when if we get together and take action, we can at lease slow down climate change and loss of biodiversity...I can't save the world, but what can I do locally...Do what you can do to sole what you are passionate about and you will find you make a difference." https://www.youtube.com/watch?v=LXXb5MjPbPI