

A Circular Economy: A Christian's Perspective

Sasha Glasscock connects the prospect of a true circular economy with the original blessing in Genesis 1. A Christian approach can lead to lasting solutions.

I was sitting in a room lit by screens, in the House of NYNN club in Athens, at a private film screening, when a wildlife photographer said something that stopped me in my tracks. "We will never lose the wonders of the world, unless we lose our wonder."¹ In that moment, the words landed differently than they might have on a printed page.

The film followed Vincent Munier, a man who has spent his life documenting Earth's most untouched places. Places whose minerals are

quietly being extracted to power the green transition we are all racing toward. The tension in that room was one I have come to know well. It is the same tension I carry from my time in Sierra Leone — from conversations with women building advocacy networks in Freetown, from data that shows 88% of Sierra Leone's mineral exports flow to a single destination.² From a clean energy sector that is decarbonising one end of the supply chain while externalising its cost to the other.

I have spent three years working inside the EV (Electric Vehicle) and Energy Sector. Before that, I participated in ClimAccelerator Beyond³ — a 12-week EIT Climate-KIC acceleration programme delivered by Impact Hub Athens, designed to help early-stage entrepreneurs develop circular economy and net zero business solutions — first as an entrepreneur, then returning in a peer-to-peer partnership supporting the programme lead. I have come to believe that a circular economy is not simply a business model. For those of us formed by faith, it is a calling — rooted in the oldest story we know.

I. *Tov Me'od*: The Starting Point

In the beginning, God made the world and called it *tov me'od*, which means "very good" in Hebrew (Genesis 1:31)⁴. Not just functional. Not merely efficient. Good, in the deep biblical sense: ordered, beautiful, full of worth. This is our starting point; not the market, not regulation, not even climate science, though all of these matter. The starting point is a Creator who looked at what he had made and declared its intrinsic value.

The linear economy — take, make, dispose — treats creation as a warehouse to be emptied. The circular economy asks a different question: what if nothing were wasted? It imagines closed loops and regenerative systems, where resources return to the earth or re-enter production without diminishment. This is, at its heart, a question about value. And Christians have always had a theology of value.



Fig 1. House of NYNN Cinema room, watching Vincent Munier's picture
Photo taken by Katerina - Athena

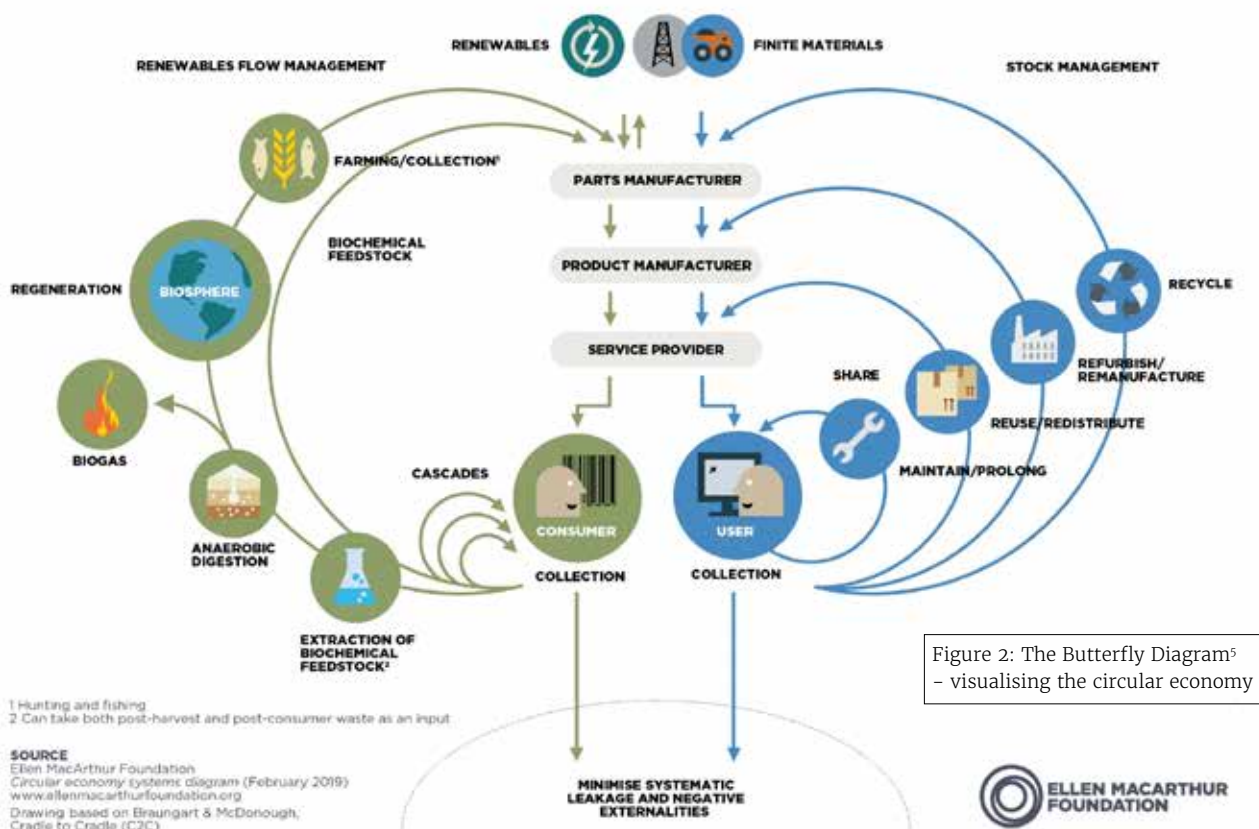


Figure 2: The Butterfly Diagram⁵ – visualising the circular economy

The linear economy follows a simple but destructive logic: take raw materials from the earth, make a product, use it, and dispose of it. Resources flow in one direction — from ground to landfill — and value is lost at every stage.

Figure 2 — the Butterfly Diagram, developed by the Ellen MacArthur Foundation — illustrates an alternative⁵. In a circular economy, materials flow in two loops rather than a line. The biological loop returns organic materials — food, cotton, wood — safely back to the soil through composting, regenerative farming, and anaerobic digestion, rebuilding the natural capital we depend on. The technical loop keeps manufactured products and components in use for as long as possible: first through sharing, maintaining, and reusing; then through refurbishing and remanufacturing; and only as a last resort, recycling. The closer to the centre of the loop, the more value is retained.

It is a diagram of a world in which nothing is thrown away. As we shall see, this is not simply good economics. It is a reflection of something deeper.

God does not waste. The same God who numbers the hairs on our heads

and notices the sparrow's fall⁶ is a God of profound attention to what he has made. If our working lives are to reflect his character, the way we treat raw materials and the people who live alongside them must reflect that attention too.

We see this most clearly at the cross. At Calvary, nothing was wasted — not the suffering, not the injustice, not even the death. What looked like the end of all things became, in the hands of God, the hinge of history. Sin, brokenness, and the full weight of human failure were not discarded but redeemed. And in the resurrection, we see the pattern made explicit: death transformed into life, loss into abundance, the finite overturned by the eternal. This is not merely a spiritual metaphor for circular thinking. It is the deepest possible grounding for it. A God who raises the dead does not throw away what he has made.

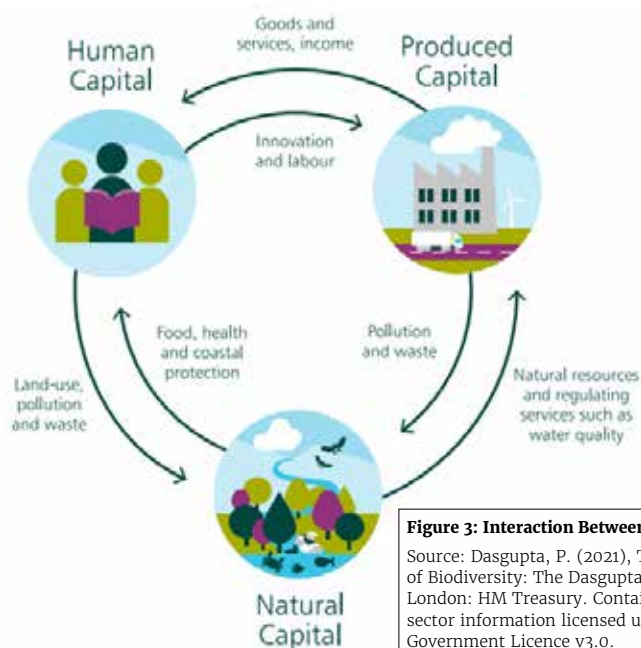
I had the privilege of attending the Cambridge Literary Festival last autumn, where I heard Sir Partha Dasgupta in conversation about his book *On Natural Capital: The Value*

of the World Around US⁷. Dasgupta (Frank Ramsey Professor Emeritus of Economics at Cambridge, and architect of the landmark Dasgupta Review on the Economics of Biodiversity) made an argument that has stayed with me. Our economic models, he said, tell us our economies are healthy because they are growing. But they have been serving us an incomplete picture: they fail to account for the resource on which all growth depends — nature itself. We have treated the natural world as infinite and free for centuries. Capital markets do not price the use of nature, and so — in the language of economics — nature is underpriced. We are drawing on a resource we have never properly valued.

This is, in economic terms, what theologians might recognise as a failure of creational accounting. If we have never properly counted the worth of what God declared *tov me'od*, it should not surprise us that we have spent it carelessly. Dasgupta's framework — putting a true value on nature, not as scenery or backdrop but as the very capital that underpins survival — is, for a Christian reader,

a secular articulation of something scripture has always known: creation is not a given. It is a gift. And gifts carry obligations.

Figure 3, drawn from the Dasgupta Review, shows how human and produced capital depend on a third, often invisible foundation: natural capital — the earth's finite resources, from minerals and water to soil and atmosphere. Without it, the other two cannot be sustained. We have built entire economies on the assumption that this foundation is inexhaustible. It is not.



The data is sobering. China processes over 90% of the world's graphite, and Chinese companies accounted for over two-thirds of global cobalt and lithium processing capacity as recently as 2022. In 2022, China produced 85% of the world's battery anodes, 82% of electrolytes, 74% of separators, and 70% of cathodes⁹. We have built the green transition on a supply chain that is neither transparent nor, in many cases, just.

GYWAN reach, travelling to villages without access to legal updates, advocating for Sierra Leone's 2024 ban on child marriage, and empowering and building the capacity of girls and young women to participate in decision-making.

Christian stewardship, properly understood, cannot be blind to this intersection. The call to love our neighbour — the one we can see (1 John 4:20) — reaches further than recycling schemes and reduced packaging, important as these are. It reaches all the way to the mine. It asks us to follow the thread, from product to processor to mine to person, and to take responsibility for what we find there. The resurrection tells us that God's restorative purposes extend to the whole of creation (Romans 8:21) — and that indifference to suffering in our supply chains is not a neutral business position. It is a failure of witness.

This is uncomfortable for businesses operating in good faith, trying to navigate complex global supply chains. But discomfort is not an excuse for inaction. Proverbs 29:7 tells us that the righteous care about justice for the poor. That is not a social aspiration. It is a moral description of what righteousness looks like in practice.

II. The Supply Chain We Don't See

Earlier this year, I travelled to Freetown, Sierra Leone, with the IMPACT team from the Christian Charity Agapé UK. I met Mellicentia Boateng and the women of the Girls and Young Women Advocacy Network⁸.

Sierra Leone holds some of the world's largest deposits of rutile and lithium. Between January and July 2024, 88% of its mineral exports by value went to a single destination: China². This is not an abstraction. These are the minerals that come back to us as EV batteries, as charging infrastructure, as the hardware of the clean energy transition. The communities I met in Freetown do not see that supply chain. They live inside it.

A genuinely circular economy cannot only be circular at the product end. Circularity that ignores what happens at the mine — to the land, to the water, to the people — is not circular at all. It is simply a more sophisticated form of extraction.

III. The Intersectionality of Stewardship

Professor Kimberlé Crenshaw's work on intersectionality¹⁰ reminds us that systems of harm do not operate in isolation. Environmental degradation, economic dependency, and structural inequality are not separate problems. They intersect — most heavily — on communities that already carry the least power: the communities near Sierra Leone's mines, and the girls and young women Mellicentia Boateng and

IV. Regulation as a Tool of Righteousness?

The European Union's Digital Product Passport, coming into force under the Ecodesign for Sustainable Products Regulation (ESPR)¹¹, will require manufacturers to disclose the full lifecycle and supply chain of their products — materials sourced, labour conditions, repairability, and recyclability. Human rights due diligence is becoming mandatory across the EU. Minerals traceability is moving from best practice to baseline expectation.

The Christian tradition has always held a nuanced view of law. Law, at its best, is not a constraint on freedom but a structure for flourishing — a means

by which the vulnerable are protected and the powerful are held accountable. When regulation compels transparency in supply chains, it is doing something that the market, left alone, has demonstrably failed to do. It is, in a limited but real sense, enforcing something like justice.

This does not mean we outsource our ethics to regulators. The organisations that are genuinely ahead of this moment are not waiting for legislation. They are asking harder questions earlier: *What is in our product? Who made it? At what cost?* These are not soft questions. They are, as I wrote recently on LinkedIn¹², the most commercially urgent questions facing this industry. And for those of us motivated by faith, they are simply the right questions.

V. The Business of Repair

The circular economy offers a framework for rethinking value at every stage of a product's life. Design for longevity. Closed-loop material flows — regenerative rather than extractive relationships with the natural world. When businesses build these principles into their operating models, they are — whether or not they use this language — participating in repair.

What makes this distinctly Christian is not the framework itself, which secular sustainability thinkers have developed with rigour and creativity. What makes it Christian is the *motive*. We care for creation not because it is strategic — though it increasingly is. We care because it belongs to the One we love. We resist waste not because it reduces costs — though it often does. We resist waste because a God who called creation *tov me'od* is not honoured by our careless use of what he made.

And we press into the discomfort of supply chain transparency not because the regulations demand it — though they will — but because the person at the other end of that supply chain bears the image of God. Their dignity is not a compliance variable. It is a theological non-negotiable.

The circular economy gives us a framework. The Christian faith gives us a foundation and a motive.

VI. Wonder as a Business Practice

I keep returning to that room in Athens. A wildlife photographer. Screens powered by minerals pulled from the ground in West Africa. A film about untouched places.

In 2026, that image has sharpened. We sit with heatwaves breaking records across continents, with data centres consuming vast quantities of water simply to stay cool enough to run. A single AI query uses an estimated 0.32 millilitres of water for data-centre cooling alone — and around 0.3 watt-hours of electricity, roughly ten times the energy of a Google search. Across approximately one billion daily queries, that amounts to 120 megalitres of water and enough electricity to power 30,000 UK homes every year¹³. The UK National Grid projects data-centre electricity demand to quadruple by 2030, driven primarily by AI. The green transition and the digital transition are intersecting — and both are running on a supply chain the world has not yet learned to value honestly.

This is not a counsel of despair. It is an invitation to a different kind of attention.

Real wonder asks where things come from. It follows the thread from screen to server to mineral to mine to person — and refuses to look away from what it finds. For a Christian in business, this attentiveness is not optional, nor is cognitive dissonance a luxury we can afford. It is the natural outworking of believing that the world is not ours to consume but ours to steward. And stewardship, in 2026, includes the query we run, the device we upgrade, the supply chain we audit, and the regulation we welcome rather than resist.

We might also ask what happens at the end. What becomes of the device

when it is discarded, the battery when it can no longer hold its charge, the mineral when its first life is spent? A circular economy does not treat endings as conclusions. Neither does the Christian faith. The resurrection is the ultimate answer to the question of what comes next — and it shapes how we think about every material thing we make, use, and release back into the world.

Alternatives already exist. Ecosia, the search engine that runs entirely on renewable energy — generating twice the electricity needed to power its searches and investing all its profits in climate action — shows that even the most ordinary digital habit can be redesigned around a different set of values. Give Your Best, a UK social enterprise, tackles clothing poverty and fashion waste by connecting donated clothes directly with refugees and people experiencing poverty, keeping over 60,000 items in circulation and diverting 21,000 kilograms from landfill¹⁴. Nothing wasted. No one left behind. The logic of the circular economy and the logic of the gospel are moving in the same direction.

We are not called to act from fear — of climate breakdown, of regulatory penalty, of reputational risk. We are called to act from love. Love for the Creator who declared his world *tov me'od*. Love for the neighbour at the other end of the supply chain. Love that, like the resurrection itself, refuses to accept that waste and loss are the final word.

What we do in business is not separate from who we are before God. It is one of the primary arenas in which our faithfulness is tested and formed. May our working lives, our supply chains, our queries, and our choices be part of keeping this world very good.

Tov me'od. Very good. 

1. Vincent Munier, *éternel émerveillé*, dir. Pierre-Antoine Hiroz and Benoît Aymon, RTS, 2019 — rts.ch/play/tv/passe-moi-les-jumelles/video/vincent-munier-eternel-emerveille?urn=urn:rts:video:10846815. Screened at House of NYNN, Athens, as part of an ESSEC Alumni evening, 2026. The quote is attributed to Vincent Munier.
2. National Minerals Agency of Sierra Leone (NMA), Official Newsletter, 2024 edition, cited in: Christian Kemeh Alpha Conteh, '88% of Sierra Leone's Mineral Exports in 2024 Headed for China', #theuntoldstories (Substack), 18 February 2025, available at: chriswizo.substack.com; and Sorie Abubakar, 'China Imports 88% of Sierra Leone's Natural Minerals — Report', Sierraloaded, 18 February 2025, available at: <https://sierraloaded.sl/news/china-imports-88-sierra-leone-minerals-report/> For broader Sierra Leone mining sector context, see: U.S. International Trade Administration, 'Sierra Leone — Mining and Mineral Resources', [trade.gov](https://www.trade.gov/country-commercial-guides/sierra-leone-mining-and-mineral-resources), updated January 2026, available at: <https://www.trade.gov/country-commercial-guides/sierra-leone-mining-and-mineral-resources> Note: the NMA's public Precious Minerals Export Statistics portal (pmexport.nma.gov.sl) covers gold and diamonds only and does not include bulk industrial minerals such as rutile, bauxite, and iron ore.
3. EIT Climate-KIC, 'ClimAccelerator Beyond 2022', available at: climate-kic.org/open-call/eit-climaccelerator-beyond-2022. The programme was delivered in collaboration with Impact Hub Athens.
4. Genesis 1:31 (NIV). The Hebrew phrase *tov me'od* — rendered in English as 'very good' — carries a stronger sense than mere functionality. Old Testament scholars note it denotes completeness, aesthetic order, and moral goodness. See Gordon J. Wenham, *Genesis 1–15*, Word Biblical Commentary (Waco: Word Books, 1987), pp. 33–34.
5. Ellen MacArthur Foundation, 'Circular Economy Diagram' (The Butterfly Diagram), available at: ellenmacarthurfoundation.org/circular-economy-diagram.
6. Matthew 10:29–31 (NIV): 'Are not two sparrows sold for a penny? Yet not one of them will fall to the ground outside your Father's care. And even the very hairs of your head are all numbered. So don't be afraid; you are worth more than many sparrows.' The passage establishes the extent of God's providential attention to what he has made — including the material world.
7. Partha Dasgupta, *On Natural Capital: The Value of the World Around Us* (London: Penguin, 2025). The author heard Sir Partha Dasgupta discuss this work at the Cambridge Literary Festival, Autumn 2025: 'Partha Dasgupta | The Value of the World Around Us', Old Divinity School, Cambridge, 23 November 2025, available at: cambridgeliteraryfestival.com. See also Dasgupta, P. (2021), *The Economics of Biodiversity: The Dasgupta Review* (London: HM Treasury), available at: assets.publishing.service.gov.uk.
8. Girls and Young Women's Advocacy Network (GYWAN) — [instagram.com/gywan_global](https://www.instagram.com/gywan_global). GYWAN is a Sierra Leonean youth organisation led by Mellicentia Boateng, advocating for the rights and inclusion of girls and young women and for Sierra Leone's Prohibition of Child Marriage Act 2024.
9. U.S. Energy Information Administration (EIA), 'China dominates global trade of battery minerals', *Today in Energy*, 21 May 2025, available at: eia.gov/todayinenergy/detail.php?id=65305. Battery component figures (anodes 85%, cathodes 70%, electrolytes 82%, separators 74%) draw on the Centre for Strategic and International Studies (CSIS), 'Friendshoring the Lithium-Ion Battery Supply Chain' (2022). Graphite processing figure (>90%) draws on Reuters, 20 October 2023. These statistics pertain to 2022 data unless otherwise stated.
10. Kimberlé Crenshaw coined the term 'intersectionality' in her 1989 legal essay 'Demarginalizing the Intersection of Race and Sex: A Black Feminist Critique of Antidiscrimination Doctrine, Feminist Theory and Antiracist Politics', *University of Chicago Legal Forum*, vol. 1989, no. 1, pp. 139–167. The concept identifies how overlapping systems of disadvantage — such as race, gender, class, and geography — compound one another, creating forms of harm that cannot be understood by examining each dimension in isolation. Crenshaw uses the metaphor of a traffic intersection to illustrate how structural disadvantage operates. See also: Kimberlé Crenshaw, 'The Urgency of Intersectionality', TED, October 2016, available at: https://www.ted.com/talks/kimberle-crenshaw_the_urgency_of_intersectionality
11. European Union, 'EU's Digital Product Passport: Advancing Transparency and Sustainability', <https://data.europa.eu/en/news-events/news/eus-digital-product-passport-advancing-transparency-and-sustainability> See also: Regulation (EU) 2024/1781 (ESPR), in force 18 July 2024 — <https://eur-lex.europa.eu/eli/reg/2024/1781/oj/eng>; and Directive (EU) 2024/1760 (CS3D), in force 25 July 2024 — <https://eur-lex.europa.eu/eli/dir/2024/1760/oj/eng> Note: CS3D was subsequently amended by Directive (EU) 2026/470 (Omnibus I).
12. The author has written on supply chain transparency and human rights due diligence in the clean energy transition: Sasha Glasscock, 'The Law Exists — Most People Don't Know It', *Consciously Circular* (Substack), available at: open.substack.com/pub/consciouslycircular/p/the-law-exists-most-people-dont-know; and a LinkedIn post on anti-slavery, electrification and clean energy, available at: [linkedin.com/posts/sashaglasscock_antislavery-electrification-cleanenergy](https://www.linkedin.com/posts/sashaglasscock_antislavery-electrification-cleanenergy).
13. Connection Technologies, 'How Much Energy & Water Does ChatGPT Use? UK View 2026', 17 April 2026 (updated 27 April 2026), available at: connection-technologies.co.uk/blog/how-much-energy-water-chatgpt-use-uk-2026. Drawing on OpenAI disclosures and UK National Grid ESO Future Energy Scenarios 2024. For AI water usage lifecycle analysis, see also: University of California, Riverside, 'AI Programs Consume Large Volumes of Scarce Water', April 2023, available at: news.ucr.edu.
14. Give Your Best C.I.C., *Our Mission*, giveyourbest.uk/our-mission. Give Your Best is a registered social enterprise (Company No. 12977907) and a registered project under ForRefugees (Charity No. 1168435). Impact figures — 5,500+ people supported, 60,000+ items donated and shipped, 21,000kg diverted from landfill — as reported on giveyourbest.uk.

Figure Captions and Image Credits

Figure 1. The House of NYNN cinema room, Athens, during a private screening of Vincent Munier's film. Photograph: Katerina-Athena, 2026.

Figure 2. The Butterfly Diagram, visualising the circular economy. Source: Ellen MacArthur Foundation, ellenmacarthurfoundation.org/circular-economy-diagram.

Figure 3. Interaction Between the Capitals. Source: Dasgupta, P. (2021), *The Economics of Biodiversity: The Dasgupta Review*. London: HM Treasury. Contains public sector information licensed under the Open Government Licence v3.0.



Sasha Glasscock is an incoming MSc Candidate in Circular Economy at the University of Edinburgh (Edinburgh Futures Institute, 2026–2027), with three years of experience in the EV and Energy Sector, including an EU-funded circular economy accelerator project with Impact Hub Athens (2021–2022). She is a member of Holy Trinity Church, Cambridge.