



# MANNA matters

Newsletter of MANNA GUM.

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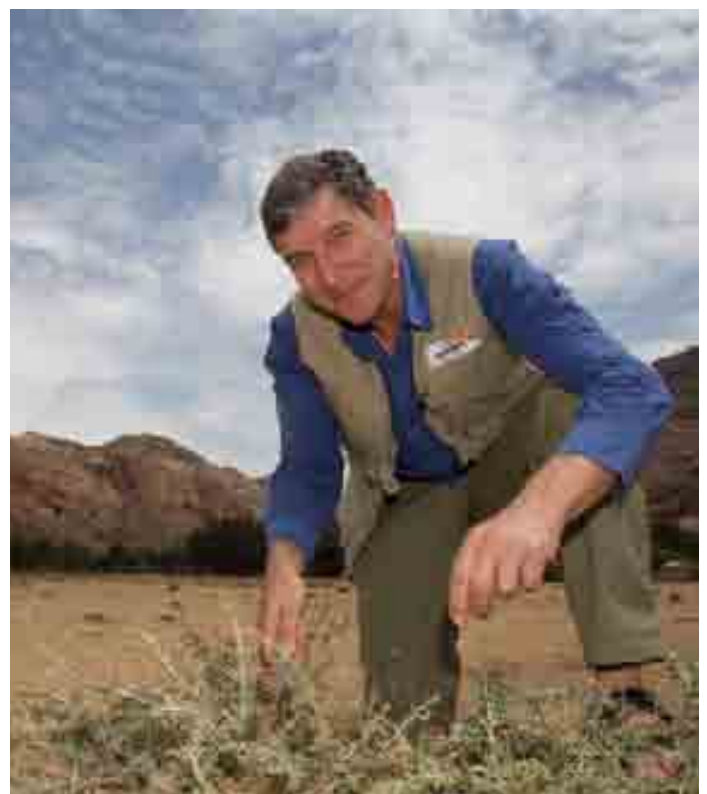
*Kim Cornford (p. 17)*

## News from Long Gully

The response to Manna Gum's Special Appeal at the beginning of the year was incredibly encouraging. Having decided to try to pay another wage ongoing we needed to grow Manna Gum's annual income to be able to cover it, but were doubtful as to how possible this was in uncertain times. The response to the appeal has given us real confidence that it is possible. We are not fully there yet, but we are much further ahead than we expected to be. Thank you to all those who have contributed.

In this edition of *Manna Matters*, we are trying a couple of new things. We are trialling expanding the print

*(News cont. on back page)*



# Putting Humans in Their Place

## The Ecological Ethics of Genesis 1 & 2

by Jonathan Cornford

When I wrote the first version of this article in 2020, bushfires of an unprecedented scale and intensity were burning across the east coast of Australia, and temperature records were tumbling everywhere. Those fires were quickly followed by floods and, as I write now, another round of dramatic floods in New South Wales and Queensland is receding. This is what dangerous climate change looks like. It is happening and, short of dramatic action, it will continue to worsen.

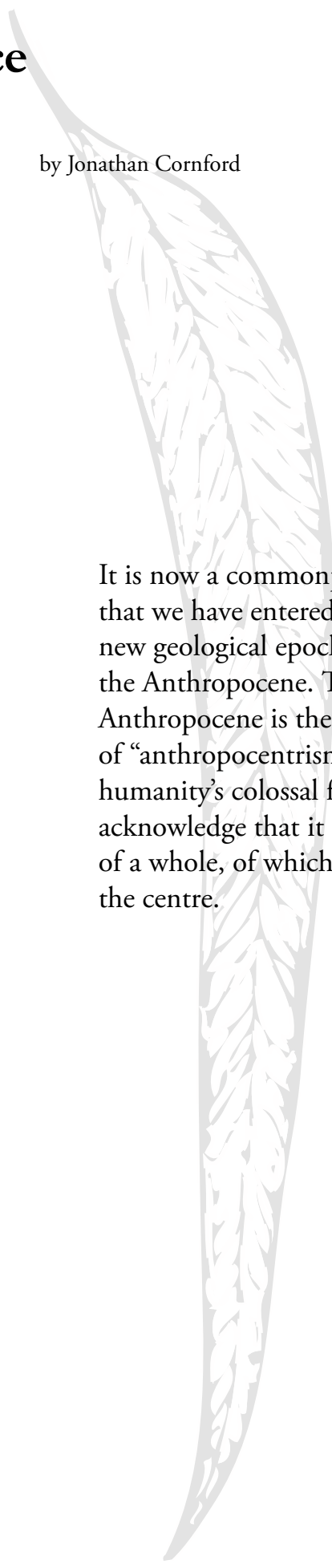
The gut-churning grief and fear that accompanies this knowledge is magnified by the scale of the human capacity for denial that is also being laid bare. And at the heart of this grief and fear is the consciousness that *we have done this*. It is now a commonplace that we have entered a new geological epoch, the Anthropocene. The Anthropocene is the product of “anthropocentrism”: humanity’s colossal failure to acknowledge that it is part of a whole, of which it is not the centre.

Although terrifying, this is true self-knowledge; the sort that is necessary to repentance and hope. But there is an additional element to this narrative that is widespread in both secular and religious circles where there is a concern for the state of the planet: it is Christianity that is largely to blame for this disastrous anthropocentrism. Is this also true self-knowledge or is it another tragic twist in a tragic tale?

A little over 50 years ago, *Science* magazine published the now classic article of Medieval historian Lynn White, “The Historical Roots of Our Ecological Crisis”. White’s bold and provocative thesis has been hugely influential, widely cited and played a key role in catalysing new fields of academic scholarship, including environmental ethics and eco-theology. White’s passion for the non-human world, his critique of the onward march of civilisation, and his broad-ranging historical insights make his article a stimulating and even inspiring read. His goal was to seek a deep shift in the way in which modern humans view their place in nature.

Ostensibly a committed Christian, White nevertheless held a profoundly negative understanding of the Judaeo-Christian ecological worldview, so much so that he considered it needed wholesale abandonment. In White’s view, “Christianity is the most anthropocentric religion the world has seen.” It not only licensed human exploitation of nature, but virtually demanded it. Ultimately, White felt that “Christianity bears a huge burden of guilt” for our present ecological crisis.

I think White’s historical claims about Christianity are wrong: I think modernity and capitalism – that is, the repudiation of



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*Fire and flood. LEFT: the Green Wattle Creek bushfire moves towards the Southern Highlands township of Yanderra as police evacuate residents, Dec 2019. RIGHT: flooding on the banks of the Brisbane River, Feb 2022.*

Christianity – are the real sources of our ecological crisis, but that is a story for another day.

Instead, I want to focus on one particularly tragic element of Lynn White's thesis: his presumptions about the *ecological meaning* of the creation myths of the Hebrew Bible. For White, the meaning of these stories was simple and clear: they "established a dualism of man and nature but also insisted that it is God's will that man exploit nature for his proper ends". The widespread acceptance of his simplistic thesis has contributed to a significant amount of hostility and suspicion of Christianity in sectors of the environmental movement, and has contributed to a crisis of self-confidence in many ecologically concerned Christians.

### Literature, Meaning, Context

Certainly it is true that an exploitative reading of Genesis has indeed been present in some strands of Christianity. But this is a profound misreading of the Bible's creation stories, more a product of modernity and capitalism than of the texts themselves. When we focus on the texts and the larger narrative within which they are situated, it is clear that, rather than licensing exploitation, the creation myths of Hebrew scripture offer prescient, challenging and instructive wisdom for our present ecological crisis. I will suggest that there is indeed a certain sort of "anthropocentrism" (putting humans at the centre) in the Biblical creation myths, but one with quite a different meaning and implication from what is usually inferred by that term.

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For modern hearers to properly understand the Hebrew creation myths, we need to try to appreciate what form of literature they represent, and what meaning they communicated to a marginal, ancient, Semitic, agrarian people. A pathway towards this perspective has been opened up to us by the first peoples of this continent – another marginalised people whose worldview has, until recently, been largely ignored or denigrated. But in recent years we have seen a growing appreciation of the richness of meaning, and especially the ecological wisdom, contained within the story-world and law of indigenous cultures. Writing of indigenous Australian creation myths, Bill Gammage writes: "Aboriginal landscape awareness is rightly seen as drenched in religious sensibility, but equally the Dreaming is saturated with environmental consciousness. Theology and ecology are fused."

As with most creation myths, the key purpose of the stories in Genesis chapters 1 and 2 is not to provide a historical account of causality, but is rather to *convey the meaning of experienced reality* – the world that *is*. Creation myths communicate about the nature of nature, and locate the human place within it. For the Hebrews, as for the First Australians, creation myths provide the foundations of the moral order – the foundation of Law.

Genesis, in fact, contains two different creation stories. The first (chapter 1) is a highly structured poetic liturgy, the second (chapter 2), generally considered the older, is more in the form of an aetiological myth: a story that explains why things are the way they are. They have been



*Bas-relief at the entrance to a temple in the ruins of Nimroud, believed by some scholars to depict Marduk slaying Tiamat.*

arranged by the compilers of the Biblical canon in such a way that suggests they were seen as each contributing necessary and complementary perspectives.

To catch the full narrative impact of Genesis 1, we need to realise that it was a story told by a people conquered and living in exile within the Babylonian Empire, for whom the dominant creation myth was the *Enuma Elish*. In that story, the world is created out of the gore and violence of the conflict by which the god Marduk slays his mother, Tiamat. As a concession to the other gods who are worried about Marduk's dominance, he then creates humans to be their slaves and to do all their bidding. Of course, this service is rendered to the gods through service to Marduk's representative on earth, the Babylonian king. The Babylonian creation myth provided the meaning and justification for a system of domination and oppression.

Into this story-world of violence, domination and empire, the Hebrews tell a counter-myth of a world created entirely out of a good God's intention; that is, out of

love. The creator God expresses delighted pleasure in the diversity of life that has come into being, pronouncing it good seven times, which is the number of completeness.

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This is as strong a statement as you can find of what we call "intrinsic worth". In stark contrast to the Canaanite *baalim* cults, in which the fertility of the soil had to be purchased each year by sacrifices to the gods (even, sometimes, by human sacrifices), this creation story falls over itself to describe a world in which fecundity is in-built and overflowing.

Parallel to the *Enuma Elish*, in Genesis 1 the creator God also sees fit to create a representative of the divine on earth. But whereas in other Near Eastern cosmologies (Egypt, Assyria, Babylonia), this place of divine representation was reserved for kings, in the Hebrew creation story that representation is given to *all human beings*: pointedly men *and* women. Divine representation is denoted by the imparting of "the image of God" to every human. Here is an ancient statement of radical equality that goes far beyond even the Athenian idea of democracy.





## "Dominion"

But this also brings us to the sticking point for Lynn White, and for many since him: the accompanying attribution of “dominion” or “rule” to humans, as the corollary of bearing the image of God. Much of our trouble comes from the choice of the English word “dominion” to translate the Hebrew word, *radah*. The quick assumption of White and so many others has been that dominion is a license to dominate. But even if we stick with this problematic English translation, it is resoundingly clear from the rest of Biblical narrative that the political concept of dominion or rule is never understood as licence to dominate, but rather an injunction to the polar opposite: it is an injunction to servanthood. The Hebrew Bible contains a variety of contested traditions about the politics of kingship, but all of them agree that rule has failed once it becomes domination. In the prophetic critique, the measure of rule is frequently the care of the weak and vulnerable. This is even more profoundly evident once we get to the New Testament. There, the concept of dominion/rule is located firmly with the figure of Christ, who pointedly told his followers, “The kings of the Gentiles lord it over them. [...] But I am among you as one who serves.”

Hebrew Bible scholar, Ellen Davis, has argued that “dominion” is an inadequate translation of the Hebrew, *radah*. She proposes that rather than “dominion over”, the English phrase “mastery among” gives a more faithful rendering of the sense of the Hebrew poem. The term “mastery” has the sense of that quality achieved by a master of a craft who has an intimate understanding of the possibilities and limitations of both the materials on which she works and the tools with which she works. And such intimate understanding only comes with *love* of both materials and tools. Davis notes that throughout Hebrew scripture the best index of human fidelity to their divine mandate is “the sustained fertility and habitability of the earth”. When humans are faithful to their calling, the rains fall in season, the land yields fruit and the wild creatures abound. When humans pursue an independent path, the rain does not fall, the earth suffers and the land is desolate.

This rendering also gives the dual sense of humanity being, on the one hand, a creature like all others and a participant in the community of creatures; but on the other hand, also marks the human as importantly different from other creatures. Here we meet another objection: no matter how beneficent or selfless we grant this injunction laid on humans to be, this is still a story that places



Adam tilling the earth, from The Foster Bible, 1897.



The Gleaners, Jean-François Millet, 1857.

humans at the centre of things. It is anthropocentric. And surely it is humanity's egotism that is the cause of our present crisis? I will take up this objection in a moment, but first let me say a few words about the second Hebrew creation myth.

The creation story of Genesis 2 serves to significantly underline the human vocation of beneficent care. In that story, Adam is a creature who is created from the *adamma*, the fertile soil (not "the dirt"), and animated with the breath of God. Adam, the earth-creature, is placed in the garden and instructed to "work and to keep it". Here, the Hebrew word for "work", *abad*, means working for someone: it denotes service. The word translated as "to keep" is the rich Hebrew term, *shamar*. This word denotes protection and nurture, but the same word is also used in the injunctions to "keep" God's commandments, or even more pointedly, to "observe" the commandments. In both the English and the Hebrew, the meaning of observing commandments means both to stay within their bounds, but also to contemplate them closely. The two are interdependent. Staying within certain bounds requires paying close attention to what those bounds may be. That is, the vocation of *shamar* is a calling to observe limits, which requires understanding limits. So the calling of

Adam to work and keep the earth might also be rendered as a vocation "to serve and observe" the earth.

In the giving of the Law in the books of Torah, following this story, significant attention is given to the practice of what we would now call human economy, addressing agriculture, labour, commerce and finance. The consistent theme underlying the Torah's diverse discussions of economic practice is a call to *observe limits* for the sake of the health of the human community, and the sake of the health of the land itself. This ancient injunction is central to what Kate Raworth calls "thinking like a 21<sup>st</sup>-century economist" (see *Doughnut Economics*).

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### Anthropocentrism in perspective

But still there is the objection of anthropocentrism. However wise, however beautiful the calling, the human is still given a central role in the Biblical creation stories.

But this is a simplistic and superficial critique that misses a number of points. The first is simply to note that creation myths were stories told by ancient humans, to humans, for the purpose of instructing humans. (By "stories" I do not mean mere stories – all attempts to communicate truth are couched in a narrative form of some kind.) It is inevitable





and indeed proper that these stories give their key focus to humans. The key question is just what they say to humans about their place in relation to the rest of the natural world.

Secondly, an obvious retort to the charge of anthropocentrism is that the clear and obvious point of the Genesis accounts is to affirm that humans are not central to the ordering of the cosmos, God is. They are pointedly theocentric stories. Any special role attributed to humans (which we shall come to) is not self-ordained but *given*, and it is given within, not over, an already established created order that has its own integrity and intrinsic value.

Thirdly, and this brings me to the key point, the very charge that our ecological crisis is the product of anthropocentrism is in fact admitting a certain kind of anthropocentrism.

It is stating, correctly in my view, that humans are *the central problem*, and as such any “solution” is dependent upon some change in the thought-world and conduct of humans. This admits that humans are somehow different to all other creatures, and certainly more powerful.

Both of the creation stories of Genesis ascribe a special role to humans because of the special power that humans hold. This special power is not a doctrinal assertion of moral superiority, it is an empirical observation, and this same empirical observation is now being made repeatedly by the world’s scientists. Biologist Edward Wilson has commented: “*Homo sapiens* has become a geophysical force, the first species in the history of the planet to attain that dubious distinction.” The magnitude of human impact is attested by the naming of a new geological epoch, the Anthropocene. As the Living Planet Report notes: “This is the first time a new geological epoch may be marked by what a single species (*Homo sapiens*) has consciously done to the planet – as opposed to what the planet has imposed on resident species.”

We live every day with confirmation of the fact of the special power of humans. What we have not heeded, and the central message of the Hebrew creation stories, is that with special power comes special responsibility. And in those stories, the special responsibility is marked by the vocation to serve the whole, to master the power we wield, and to do so by observing limits. Special power without special responsibility, as the Bible tells us, inclines inexorably to uncreation, the unwinding of the good that God has wrought.

Whatever our ideological position, the reality is that in virtually every bio-region on the planet, ecologists are now insisting that the health of ecosystems is now dependent upon human action of some sort. Charles Massy, in his inspiring *Call of the Reed Warbler*, which is a manifesto for the reconfiguring of agriculture, has come to something like this position. In describing the conditions for a regenerative (rather than an exploitative) practice of agriculture, Massy outlines five “landscape functions” that combine to determine the health of ecological systems. Strikingly, the fifth of these “landscape functions”, is the human mind. Massy writes: “The greatest of all determining factors on the healthy regeneration or else degradation of those very landscapes boils down to the way we think, what we believe, and how we model in our minds the way the world and our landscapes work.” Massy’s great plea is that we become ecologically literate

landscape managers. It is a modern version of the Genesis call to mastery, and to serve and observe the earth.

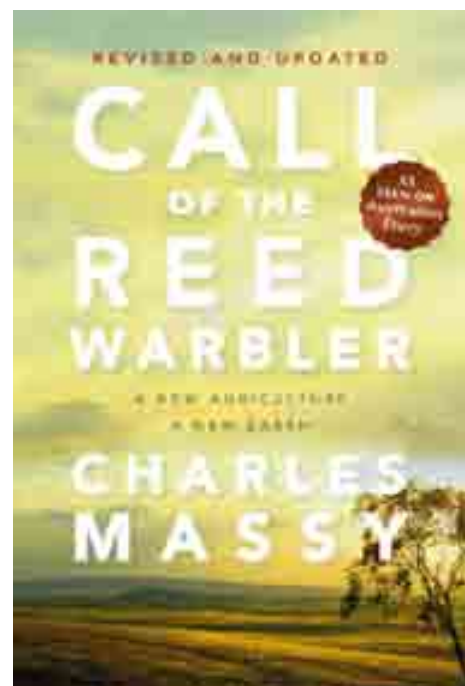
As dangerous climate change unfolds before our eyes, it is patently evident that the best possible outcome for us and the whole community of creation is entirely dependent upon humanity coming to a full acknowledgement of its special power (what we have done)

and its special responsibility (what we now must do), which must centrally involve mastering our power. For the Christian, this is more than an ethical responsibility, it is an evangelical responsibility, for we know that the only way to master ourselves is to acknowledge the rule of another...

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# Making a Forest

## The hopeful story of Farmer-Managed Natural Regeneration

by David Hooker

Tony Rinaudo is an Aussie missionary, also known as 'the forest maker,' who is a Right Livelihood Award Laureate and Member of the Order of Australia. As a young man growing up in Victoria's Ovens Valley, Tony formed a deep concern for trees and forests as he witnessed land degradation right on his doorstep.

In the hills and valleys of northeast Victoria, Tony was disturbed by the bulldozing of forests to make way for pine plantations and the contamination of mountain streams and fertile soils with toxic pesticides used to grow tobacco crops. Biodiversity was being lost and the environment abused in the name of "progress." But how could this be progress, Tony wondered, when we focus on growing tobacco while children in other countries are going to bed hungry?

Shaped by these two desires to repair the environment and relieve poverty, Tony trained in agriculture at The University of Armidale where he met and married Liz, who shared his passion and the call to serve overseas. Step by step, God was guiding and providing, and in 1981 the recently married couple arrived in Niger, Africa.

What Tony saw when he arrived in 1981 were large swathes of "moonscape." Trees were incessantly cut down to grow their main food crop – millet. Poor and often hungry farmers saw trees on their land as weeds to be eliminated. The result was rampant deforestation. This desert moonscape was an ecological and a livelihood disaster, as the land could no longer provide for the people living on it. Tree removal was not nurturing growth and health, but facilitating desertification, famine, poverty and drought – a destructive cycle.

"Lord, why did you bring me out here? You could have just as easily made a fool of me in Australia. You didn't have to bring me all this way." Yet, in desperation, he also asked of God, "Open our eyes; show us what to do. Help us."



*The Ovens River Valley, where Tony grew up. Photo: Russell E.*





Photo: Silas Koch/World Vision Australia.

For the first few dogged years, Tony tried conventional tree-planting, but to his deep frustration, the new trees were dying because of neglect, animals, drought, sandstorms, or termites. Adding to a sense of failure was the indifference and even hostility of many locals to the idea of reforestation – the farmers called him “the mad white farmer.”

He recalls the day that he angrily prayed, “Lord, why did you bring me out here? You could have just as easily made a fool of me in Australia. You didn’t have to bring me all this way.” Yet, in desperation, he also asked of God, “Open our eyes; show us what to do. Help us.”

After two-and-a-half long years of frustration and failure, Tony experienced his “lightbulb” moment:

He says: “In the past, I had always hurried to get on with the job of tree-planting. But not today ... A ‘bush’ on the side of the road caught my attention.

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Tony had discovered an embarrassingly simple method of restoring landscape *without planting a single tree!*

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Thinking the bushes scattered across the landscape were just desert shrubs or weeds, I never gave them a second thought. I walked over and took a closer look ... This was not a ‘bush’. These leaves belonged to a tree. It had been cut down, and they were resprouting from the stump! These ‘bushes’ were living time capsules ready to recolonise the land if given a chance. I realised that I was standing on an underground forest.”

Even in the some of the harshest desert landscapes, the shoots of the underground forest can be encouraged to grow into trees by pruning and management. Tony had discovered an embarrassingly simple method of restoring landscape *without planting a single tree!*

It took two-and-a-half years to see a solution. Attitudes changed slowly at first, but over the following 20 years adoption of this method of tree restoration went viral. There was hostility, derision, and joking about Tony’s method, and an ingrained rejection of anything out of

the ordinary, anything not traditional. But through the catastrophic drought of 1984, Tony’s “food-for-work” program was catalysed, leading to a gradual acceptance of the method which went on to spread from farmer to farmer.

Tony’s pioneering method is called FMNR, Farmer-Managed Natural Regeneration. FMNR is simple, sustainable, and low cost. This is great news, as the benefits of FMNR are seemingly endless:

- It helps create more diversified and resilient farming systems, reducing the likelihood of famine.
- It increases essential biodiversity, increases soil moisture holding capacity and significantly reduces soil and air temperatures.
- When applied at scale, it has the potential to draw down millions of tonnes of carbon dioxide from the air, providing a nature-based solution to climate change.
- And it feeds people! In Niger alone, local farmers embracing FMNR have rehabilitated more than

five million hectares of degraded land (that’s over 200 million trees!) while *doubling* their crop yields and income. Tony says, “In Niger, our calculations show that, because of FMNR the additional food grown can feed an extra 2.5 million people every year.”

It’s almost too good to be true. The news is out: according to Chris Reij at the World Resources Institute, “FMNR is probably the largest positive environmental transformation in the Sahel and, perhaps, in all of Africa.”

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Now as World Vision Australia’s Principal Climate Action Advisor, Tony has a mission is to see FMNR introduced into 100 countries by 2030. He wants to initiate a global FMNR movement that will result in the restoration of, not millions, but one billion hectares of land.

Restoration at such a scale will have a huge positive impact on communities, climate, and the environment. FMNR has already been introduced into 27 countries and continues to spread.



Satellite photos taken in 1975 (left) and 2005 (right) show greatly increased tree cover in southern Niger. Trees are shown as black dots. Source: US Geological Survey.





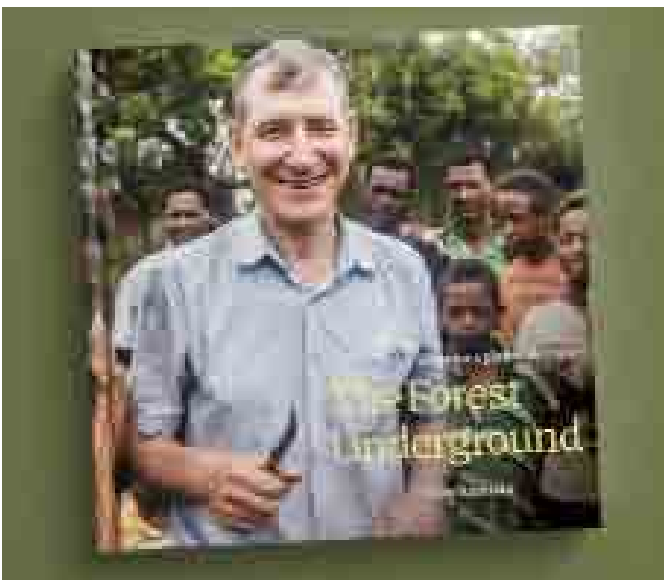
*“There’s nothing new about [FMNR]. It’s a traditional method of coppicing that has existed for centuries,” - Tony Rinaudo.  
Photo: Tony Rinaudo/World Vision Australia.*

“It’s such a simple solution to so many environmental and humanitarian issues. I hope Australia can become a global leader in supporting and investing in this technique,” Tony says.

The story of this Aussie from the bush is exciting news, offering incredible hope for our planet right at the time when the latest IPCC report (2022) conveys worrying climate trends. It’s no wonder the recent UN’s COP26 in Glasgow stresses how vital it is for all of us to work together for this beautiful world.

How can we play a part in this great news? We can tell the story. Tony’s powerful testimony carries a mighty message of hope. It’s worth telling, worth spreading, and worth being a part of. Tony has written his inspiring story in his new autobiography *The Forest Underground: Hope for a Planet in Crisis*, with proceeds going to the global FMNR movement. It will be published by ISCAST (The Institute for the Study of Christianity in an Age of Science and Technology) on April 30th. You can support FMNR by pre-ordering the book from ISCAST or Amazon, and through the FMNR hub here. Will you join the journey and be a part of healing the planet?

*This story first appeared in the November 2021 edition of Eternity magazine and has been edited for publication here. David Hooker is Publications Director for ISCAST—Christians in Science and Technology. He is trained in science and theology and recently completed doctoral studies synthesising science and theology. More details about Tony’s book are available on the ISCAST website.*







# "On Ya Bike!"

## A Practical Guide to Cycling FAR more

I don't own a car. These days I ride pretty much everywhere, and in all conditions. But it wasn't always this way. I used to view cycling as a recreational or supplementary form of transport and as a teenager I barely rode my bicycle at all, even though (had I realised it) riding to school would have cut my commute time *in half* compared to public transport. Ten years on, I find myself regularly evangelising about the many joys and advantages of using a bike as a primary vehicle.

But in my experience, most people already have their own reasons to ride more: whether it be the numerous health benefits, the delight of being out and about under pedal power, the cheaper cost, or the considerable reduction in emissions and traffic congestion. Most people already think cycling more would be a good idea, and surveys show that most of us would truly like to ride more than we currently do.

So what's stopping us? The main thing stopping me was I simply didn't realise how possible it is. Below you'll find a discussion of most of the common barriers to cycling and some ways to overcome or mitigate them. It should be said at the outset though, I'm a 28-year-old male living in the inner city: I am in the most advantageous position possible to ride as much as I do. But it is far from an all-or-nothing equation: almost all of us are able to ride much more than we might imagine. This guide will help us do just that.

by Jacob Garrett

Almost all of us are able to ride much more than we might imagine. This guide will help us do just that.



*Author with bike in 'ute-mode' carrying a week's worth of groceries with room to spare!*



## 1. Time and Distance

A common assumption is that cycling is simply slower than driving. For journeys over 5km this is often true, but in a city context, even for journeys between five and ten kilometres, the difference can be only a matter of minutes. The easiest way to test this for your area is simply to plug in a destination on Google Maps and compare the times: you might be surprised. For short trips though, especially during peak-hour traffic or those involving multiple stops, cycling can actually be faster than driving. No traffic also makes arrival times more predictable. Studies estimate that around half of all car trips made are under 5km, why not see how many of yours could be done on a bike?

In our busy world it can be tempting to prioritise efficiency, but a hidden advantage of cycling can come precisely when it takes longer. Cycling creates breathing room between activities: a chance to ease into the day or wind down after work. What's more, many of us struggle to get as much exercise as our bodies (and brains) need, especially when we view exercise as a separate activity to carve out time for in the day. Cycling regularly therefore can be *more* 'efficient' than a gym membership or going for a run, as this exercise is fully integrated into a daily rhythm.



*Bulky loads are no issue with a solid rack and some rope.*

## Hybrid approaches

Ultimately, the prospect of getting everywhere *solely* by bike is impracticable and probably undesirable for most people. Happily, cycling more is far from an all-or-nothing decision! There are a number of ways you can supplement a lifestyle still based on a cycling core.

### Train and ride

This is my personal favourite. This method greatly extends your travel range for no extra effort while bringing your total travel time often within about 30 minutes (or less!) of the same trip done by car. Most trains in Australia will have provision for your bike, but check your local regulations as this can be subject to certain restrictions.

### Cycling plus car share (no privately-owned car)

Most people need a car sometimes. But instead of owning your own, why not borrow one from a family member, friend, or neighbour for a longer trip once in a while, or for something like moving house? You could even organise a joint-ownership arrangement as a group of households in your area. These days there is an abundance of commercial vehicle sharing platforms too like Go Get, Flexicar, and Car Next Door. If you find you can achieve things with a bike 80-90% of the time, this can be a financially freeing approach.

### E-bikes

E-bikes (or 'pedelecs') have come a long way in the last few years. For those with limited physical capacity,



*You can easily take your bike on almost any train in Australia.*



travelling long distances, or transporting multiple young children the electric assistance they offer can dramatically increase the potential of living car-free, plus you can take them on the train just like a standard bike. However, purchasing an e-bike new or even converting your existing bike can be quite expensive.

### Cycling whenever you can

Many situations still demand a privately owned car, but even here there is much room to reduce dependency. It's easy to be in the habit of simply using a car for everything, when we really don't have to! Cycling 30-40% of the time still yields great benefits.

## 2. Confidence and Safety

Maybe it's been a while since you were on two wheels, or maybe you've never really ridden much before. There's always that first hump of beginner's awkwardness, but the good news is, especially if you learned as a child, it takes surprisingly little time to build basic proficiency. By far the best way to get into cycling is to do it with others!

Happily, cycling injuries are rare and usually minor, and there are many ways to make it safer (see <https://www.bicyclenetwork.com.au/tips-resources/road-rules/>).

## 3. Terrain and Lack of Infrastructure

Perhaps you live in a particularly hilly area, or somewhere with slim road shoulders and few dedicated cycling lanes and paths. These can be significant challenges. Regional and rural areas, in particular, can suffer from a lack of good cycling infrastructure and often have higher speed limits for passing cars. Ultimately, these challenges must be weighed context-to-context and cyclist-to-cyclist. If you feel the cycling infrastructure is lacking in your area



*Dedicated lanes make things safer. Photo: Maksym Kozlenko.*



*Commuting through urban woodland. Photo: Nick Carson.*

you may also choose to make your voice heard: you're unlikely to be the only one who thinks so. Unfortunately, most urban planning is still done with the motor vehicle primarily in mind. Even so, sometimes good routes can exist without our knowing. For help planning a route in your area, check out <https://www.bicyclenetwork.com.au/tips-resources/maps-and-rides/>, play around with the cycling filter on Google maps, or try out a cycling route planning app such as Bikemap.

Hills can be intimidating, but be assured the more you ride the easier they will become: remember your gears!

## 4. Clothing, Sweat, Weather

Do you work a job with a professional business dress code? Maybe you're going to a nice dinner or a party and feel cycling might limit your clothing choices. Perhaps you're worried the weather or the distance will mean you arrive sweaty or soaked by the rain. These are common concerns. Especially if a workplace has showers, many cycle commuters simply bring two sets of clothes and change before clocking in. In the absence of a change room though, with a bit of savvy you can ride a bike in just about any outfit. A raincoat (and optional rain pants) is an essential piece of kit for inclement conditions.

Sweat can be minimised by shedding layers down to a minimum, but if it's hot or hilly it does become a little inevitable. It's open to personal discretion how sweaty one can be on arrival and remain 'presentable.' As above, however, it's worth noting that we live in a society where physical exertion is increasingly viewed as a side-activity: something to be done at special times in special clothes in special places. By contrast, arriving with a bit of sweat on your brow can help re-normalise physical activity as part of regular life, which leads us to...



## 5. Fitness

Cycling is one of the least demanding forms of exercise: it utilises some of your largest and most powerful muscle groups in a very low-impact form of aerobic activity. Coupled with the genius of gear ratios, cycling allows you to fly along for only the effort a brisk walk. As a result, it takes surprisingly little time to become ‘bike-fit’: I’ve seen many women and men of different ages and fitness levels become comfortable with cycling in under a month. After all, you don’t need to be a Tour de France rider to cycle to work, the local store, or to visit a friend, and the level of basic functional fitness gained by doing so feels great as you go about the rest of your day.

## 6. Storage – where to keep it?

For those without outdoor enclosed space like a garage, this can be a significant challenge. Renters, especially, can be up against it if bikes are not allowed indoors. When considering options, remember that any choice which makes it a hassle to access your bike will inherently discourage use.

Outdoor possibilities for homes without sheds include down the side of the house, on the balcony of an apartment, or on the front porch under a veranda. Just make sure it’s covered and locked.



*Bike Nook: a freestanding indoor storage option.*

If space inside is at a premium, home-owners have access to a range of clever wall-mounting solutions. But even for those not able or unwilling to drill into walls, there are a number of free-standing, out-of-the-way options.

It is also worth considering secure storage possibilities elsewhere such as at your workplace or the free bicycle cages along many train lines (eg. Parkiteer).

## 7. Basic Equipment and Maintenance

Sometimes the biggest block to cycling is lacking the gear or know-how to get started. The number of products and variety of terminology can be a little overwhelming.

### *Bike basics*

The most important factor in a bike is whether it is sized and adjusted well for you. Adjust your seat until your leg is almost (but not quite) straight at its lowest point.

If you’re not sure about anything, take your bike along to a bike shop or community bike shed and they’ll assess it for you. Don’t be afraid to ask questions, most bike people are friendly and happy to help. Most of the time though, an old bike just needs some chain oil and a few tweaks, many of which can be done yourself! Online tutorials are invaluable for this (I like the ones from Park Tool). For those keen to learn, some priorities would be:

- Achieving correct tyre pressure (easy)
- Oiling your chain (easy)
- How to tighten/loosen various elements like seat, handlebars, rack mounts etc. (easy)
- How to remove your wheels and change a tyre/tube (easy-moderate)
- How to adjust your brakes (easy-moderate)
- How to adjust your gears (moderate)

### *Essential equipment*

- Lock – check out [thebestbikelock.com](http://thebestbikelock.com).
- Lights – don’t ride at night without them!
- Tyre pump – based on the valve you have: either ‘schrader’ or ‘presta.’
- Chain oil/lube.
- An Allen key set (metric) for adjustments.

### *Very useful (but optional) equipment*

- Water bottle and water bottle cage/holster.
- Rear mudguard.
- Phone holder for on-the-go, hands-free navigation.
- Small bike pump, spare tube, and patch kit (with tyre lever) for the occasional puncture.



## 8. Transporting stuff

With the right equipment, you can carry pretty much anything on a bike. For everything else, there's the cargo bike or bike trailer. In my experience, moving 'impossible' loads on a bike comes down to three things:

- **The right mindset:** approach with curiosity and resourcefulness – 'how would I do it on a bike?'
- **Racks and straps:** front and back racks provide stable platforms from which to hang bags, support baskets, and tie down bulky loads. Most common aluminium racks support 15-25kgs, but certain steel racks can handle far more (up to 60kg)!
- **Bags:** a backpack will only get you so far. Panniers (bags that hang from the sides of a rack) are a staple for commuting and grocery runs: a single one of these has a capacity of 20+L, and you can use two per rack (ie. up to four!).

The cargo bike and child trailer are staples for folks with young families. While these options are a greater financial investment, in some contexts they can truly render the car completely unnecessary for a whole household (especially a cargo e-bike!). For more on car-free family life, check out Cathy Cook's reflections in *Manna Matters* Nov 2013.

Of course, there are always limits. Chauffeuring elderly people or those with physical disabilities is still wiser by car, and some loads remain prohibitive. More than that, not everyone is ready or able to commit the time, energy, or money toward a bike that will enable them to do most

of what they need to on two wheels. Still, you might be surprised how much you can achieve with a simple back rack and two panniers!

## Changing our Mental Road Maps

In 1949, the average Brit cycled 474kms per year, but in 2018 managed only 80kms. By contrast, Danes today cycle *more than ten times* that! Bikes have only become more affordable and far nicer to ride than those in 1949, but since then some societies have been more profoundly shaped by the personal motor vehicle than others.

Even people with cars can cycle far more. Simply by riding more and driving less we begin to break a cultural and personal dependency that can keep us shut out from certain conceptions of the good life. It's so easy to default to the car and see cycling as merely a second-best thing, or worse, to cycle only as a form of sacrifice on the altar of health or to appease the angry god of emissions targets.

At its heart, cycling is simply an alternative answer to the question of personal transport. It has real disadvantages, but also unique advantages. Compared to driving, cycling frees up income and increases our interaction with the world outside and with the people we see as we pass by, cycling is fun and adventurous—it invites us down that side street or to stop in at that strange shop—cycling is quieter, calmer, and puts us more in touch with our bodies. So if it's been a while—or never at all—hopefully this guide has helped you consider what's holding you back and prompted you toward new possibilities.



*Friends of the author from Castlemaine, Victoria, with their cargo e-bike and child trailer, plus extra-large panniers!*



# Saving Species

## Biodiversity Protection in Central Victoria

I'm standing on a grassy hill slope in Central Victoria. Big old paddock trees dot the landscape, a mob of sheep graze in the distance, the sky is blue in every direction, and the summer sun is beginning to strengthen as the morning passes. It's late November and I'm with a small team of people walking in lines up and down hills searching for Golden Sun Moths. It's hot, the air is still, the ground is rocky, the slopes are steep, and barbed wire fences are in the way. We walk, with a few short breaks, for five hours in the hottest part of the day because this is when the moths are active. This is the essential groundwork involved in the conservation of critically endangered species.

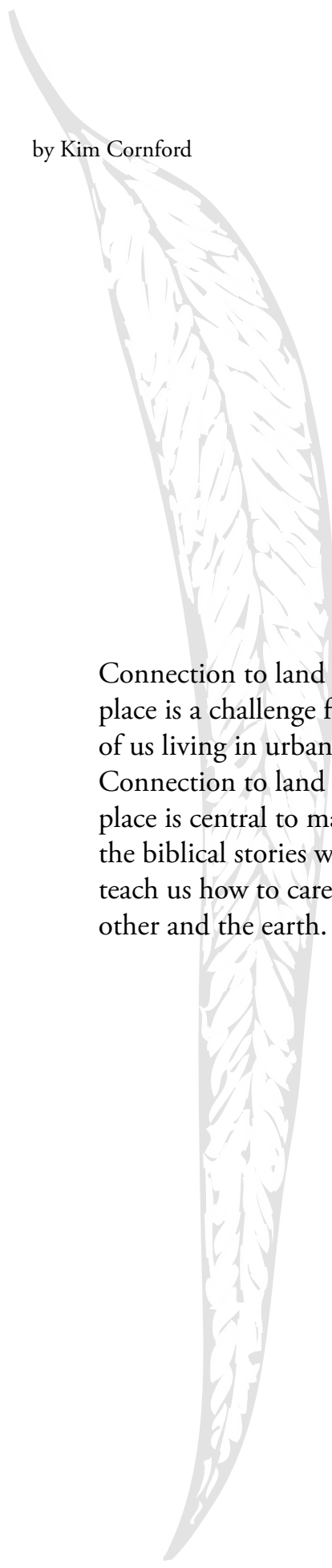
I work in landscape restoration and the protection of threatened ecosystems. My journey into conservation began with native grasslands in Footscray - an unlikely inner-city location to first learn about kangaroo grass, wallaby grass and spear grass! 'Know your bio-region' was the cry from friend and mentor, Greg Gow, later our pastor at Footscray Church of Christ. I learned that temperate grasslands and grassy woodlands originally extended from Footscray, across the volcanic plains from Western Melbourne, past Geelong, Camperdown, Warrnambool, and all the way to Portland. Before the arrival of Europeans and their sheep, grassy ecosystems flourished here and in a number of other locations across Victoria.

Connection to land and place is a challenge for most of us living in urban spaces. Connection to land and place is central to many of the biblical stories which teach us how to care for each other and the earth. The temperate grasslands of south-eastern Australia are now recognised as a critically endangered vegetation community with less than 1% remaining. Europeans weren't connected to their value and significance when they arrived, and we still struggle now. We are only just starting to learn what First Nations people have to teach us.

More than fifteen years down the track, my path has consistently followed native grassland restoration and protection in Victoria. I wouldn't say it's a path I planned, but a path I have followed by opportunity and choice; a calling to connect with and understand God's creation and my role in its stewardship. It's a vocation we are all called to in one way or another.

When a vegetation community is critically endangered, so too are all the creatures and critters reliant on that system for their survival. There is a whole suite of insects, lizards, mammals and birds listed as critically endangered in Australia due to the loss of native grassland habitat. When species are listed as critically endangered in federal legislation, criteria such as population size, geographic distribution, and probability of extinction in the wild are assessed. Extinction in the wild means if nothing is done to protect and manage species and their ecosystems, they will become

by Kim Cornford



Connection to land and place is a challenge for most of us living in urban spaces. Connection to land and place is central to many of the biblical stories which teach us how to care for each other and the earth.





extinct within ten years. Ten years is not a long time. Extinction in ten years is not the story we want to tell our children. Fortunately, a lot can be done in ten years if we so choose.

Enter stage right, the Golden Sun Moth, *Synemon plana*. This unassuming little creature is one of those threatened species reliant on native grasslands, and one I have had the great privilege and joy to learn about in the last couple of years. It's a day-flying moth about the size of a fifty-cent coin. The male is a gorgeous chocolate brown with squiggly white markings, the female has similar markings with beautiful bright orange hind wings. It spends two to three years in the larval form eating the roots of native grasses, emerging as a moth for only one to four days to fly and mate, and then dies. It used to be known as the 'mouthless moth' having no functional mouthparts.

Like many other vulnerable and threatened species, the Golden Sun Moth has particular requirements for its survival and success. The moth emerges in summer, once the temperature gets consistently warm. It flies on days with clear skies and gentler winds. And it tends not to emerge for at least two days after rain, when the ground and soil are dry. All this culminates in uncomfortable conditions for us to survey the moths! Predicting days for surveying the moths can be challenging, too, and the La Nina summers we have had for the last two years have not been as favourable for the Golden Sun Moth. Intermittent rains through spring and summer and inconsistent temperatures have made for unclear triggers for the moth to emerge.

The property we are surveying is one of five working farms owned and managed by Cassinia Environmental, where I work. On these farms, agricultural production and biodiversity protection works are done hand-in-hand. Some areas are set aside for protection, while others are being restored with tree planting, native grass seeding, and erosion control work. Pest animals and weeds are controlled to protect native vegetation and animals. The sheep are grazed in rotations across paddocks to ensure native grasses thrive, and the habitat for the Golden Sun Moth is kept intact. The wool is sold as a 'Protected Habitat' brand.

The farms are one part of Cassinia's work, which also includes the protection of places with intact ecosystems, restoring degraded places to functioning ecosystems, and connecting precious remnants already protected in the landscape. Private land conservation is an essential part of our global need to protect and restore biodiversity. Cassinia Environmental is part of an emerging market which is rapidly recognising and responding to the great challenge of stewarding our amazing planet for future generations.

It doesn't take too much investigation to be drawn into the wonder, mystery and beauty of the created world. Each part of the created order has a role to support the other in an infinitely complex web of relationships, including ours. Humans have a unique vocation to choose care and good management of the resources on the earth. I am very grateful for the opportunities I have to be drawn into this wonder and the joy I am given in return.

After being listed as Critically Endangered in 2009, the Golden Sun Moth was down-listed to Vulnerable on 7 December 2021. A conservation success.

*Kim works part-time as Landscape Operations Manager for Cassinia Environmental. If connecting to land and place in new ways interests you, you can read more about Cassinia's work ([www.cassinia.com](http://www.cassinia.com)), volunteer with Cassinia and with A Rocha ([www.australia.arocha.org](http://www.australia.arocha.org)), a Christian conservation organisation and partner of Cassinia. You can also contribute to Cassinia's work through the aTree program ([aTree.com.au](http://aTree.com.au).)*





# Remembering the Diggers

by Michael F. Bird



In 1649, shortly after the execution of Charles I in England, Gerrard Winstanley—a religious reformer, political agitator, and social activist—led a group of “True Levellers” or “Diggers.” This group of commoners wanted to level the laws of the land and portion out private land so that people could dig for their own crops, hence the designation, “Diggers.” Winstanley published a pamphlet entitled *The New Law of Righteousness*, which took its inspiration from the vision of common property in the Book of Acts. Winstanley complained that God made the Earth as a “common Treasury for all to live comfortably upon, is become through man’s unrighteous actions one over another, to be a place, wherein one torments another.” The solution, he reasoned, was, “The Earth becomes a Common Treasury again, as it must, for all the Prophecies of Scriptures and Reason are Circed here in this Community, and mankind must have the Law of Righteousness once more writ in his heart, and all must be made of one heart, and one mind.”

Winstanley also made reference to prophetic and ecstatic utterances of his followers, what people said in a “trance,” namely, “Work together, Eate Bread together, Declare this all abroad” and “Whosoever labours the Earth for any Person or Persons, that are lifted up to rule over others, and doth not look upon themselves, as Equal to others in the Creation: The hand of the Lord shall be upon that Laborer: I the Lord have spoke it, and I will do it.”

This call for communal land mixed with prophetic pronouncements about justice were directly influenced by the Book of Acts!

*Michael F. Bird is an Australian biblical scholar and priest. He lectures in theology at Ridley College, Melbourne. This reflection first appeared in his digital newsletter, Word from the Bird, on 28/03/2022 and has been re-published here with permission.*

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- Gerrard Winstanley



edition from sixteen to twenty pages, so we can fit more content in, in particular to include some shorter content under a "Manna Musings" column. Please let us know what you think – feedback is invaluable. Do you like it or is it too much?

On that, although it is probably contrary to what you might expect, if you are reading this on a screen, we would encourage you to think about getting the print edition. This is because we place a high value on materiality, and all the studies confirm that people read more deeply off a page than a screen. Plus, we know that emails tend to get buried in people's inboxes, despite their best intentions, and online communication has a much higher ecological footprint than most people realise. Manna Matters is printed on 100% post-consumer waste paper (no trees cut down) and posted in recycled paper envelopes. So if you are currently getting electronic, consider the switch to good, old-fashioned paper.

We are steadily adding episodes to MannaCast: two on the church and one on ethical consumption. In February, I also took part in the ABC Radio National program, "God Forbid", discussing living with less. You can listen to it on the Radio National website. In an exciting development, Jacob has been exploring getting some of Manna Gum's material to high school-age kids through the youth organisation, Mustard. Watch this space.

**Jonathan Cornford**



You can find the MannaCast at [mannagum.podbean.com](http://mannagum.podbean.com), or on your preferred podcast platform.





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### CONTACT US

POST: 27 Albert Street, Long Gully VIC 3550  
EMAIL: [jonathan@mannagum.org.au](mailto:jonathan@mannagum.org.au)  
PH: (03) 5441 8532

### About Manna Gum

Manna Gum is an independent non-profit organisation that seeks to:

1. Help Christians reclaim and practise Biblical teaching on material life; and
2. Promote understanding of the ways our economic lives impact upon ourselves, others and the earth.

Manna Gum is motivated by a vision of renewal of the Church in Australia as an alternative community that witnesses to the Kingdom of God.

Please contact us if you would like us to speak to your church, group or organisation; or if you would like more information about our work; or to discuss how we could support you and your church/group/organisation to explore some of these issues.

# [www.mannagum.org.au](http://www.mannagum.org.au)