



Planet, People, Profit

Dr. Junius Tirok

Corporate Sustainability

- **The most fundamental question:**

which firms survive, that is which firms achieve success and why?

Three popular quotes about the reasons for profitability and market success:

The famous 1982 book, *In Search of Excellence*, by Thomas Peters and Robert Waterman:

that the keys to success can be identified by watching and imitating the behaviors of successful firms:

- Studied a group of 43 firms (long-term superior performance on dimensions such as profitability and growth).
- Concluded that successful firms **shared common qualities**, including **“close to the customers,” “stick to the knitting** (to become compacted to grow together by common interests),” and **“bias** (systematic tendency) **for action.”**

The New Market Leaders by Fred Wiersema, 2001:

Wiersema's finding mirror those of Peters and Waterman

- the new market leaders are “**close to their customers**” and “**skilled at segmenting** (develop new products, advertise intensively, outsource core activities, so as to better concentrate on what they do best) **markets**”

Good to Great

by Jim Collins

- Collins studied the characteristics of firms that broke a long term pattern of good performance (above average) and entered into a 15-year period of great performance (cumulative stock return three times that of general market).
- Only 11 firms met this demanding hurdle, including such well known firms as Walgreens, Well Fargo, Philip Morris, and Abbott.
- Collins finds several characteristics that help explain his groups' performance: **these firms possess leaders who shun the spotlight and work for the firm:**
- Performance shifts at these firms begin with management staffing (right people are put in place); use technology to support their strategy, not determine them); managers at these firms can “confront the brutal facts” of their situation and determine what to do about it.

So What's the Problems?

- All these studies assess the **past performance** of successful firms.
- Assumes that other firms can achieve similar results **by mimicking** their actions.
- The problems:
- Using a given firm's experiences to understand what would make all firms successful is extremely difficult.
- The reasons for success are often unclear and complex. Good example, Enron, was once held up as an exemplar of how to conduct business in the new economy, but it was ultimately revealed to be a company that relied on accounting shell games to appear profitable.
- The internal management systems of a firm may spur product innovation particularly well but not be apparent to individuals who are unfamiliar with how the firm operates.
- The industry and market conditions in which successful firms operate may differ greatly from the conditions faced by would-be imitators.
- Success may also due in part to a host of idiosyncratic factors that are difficult to identify and impossible to imitate.

There are two ways to interpret this variety and evolution of management practice.

- First, is to believe that the development of successful strategies is so complicated as to be essentially a matter of luck.
- The second interpretation presumes that successful firms succeeded because the strategies best allowed them to exploit the potential profit opportunities that existed at the time or to adapt to changing circumstances.

Successful strategy, therefore
is about the interaction between **firms** and
environments overtime

**That is dynamic strategic
management**

It is a synthesis of **ecology, economics, strategic management**

The dynamics of industries and competitors.

THE NEW COMPETITIVE SPACE

New locus of
Competence and
Innovation

The Nature of Value Creation Process is Shifting

External Markets Shift

- Competition base is shifting

From

Production capabilities and
product characteristics

To

Deep understanding of markets
and customers, and ability to
provide unique value propositions
to targeted customers
and
Deep understanding of ecology

Internal Shift

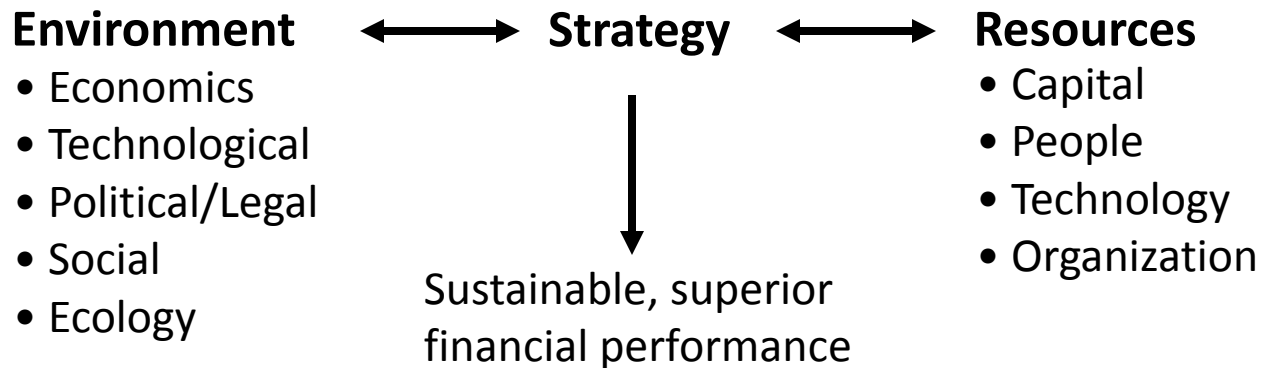
- Responding to external markets shift, internally the competitive advantage is shifting

From

Tangible assets

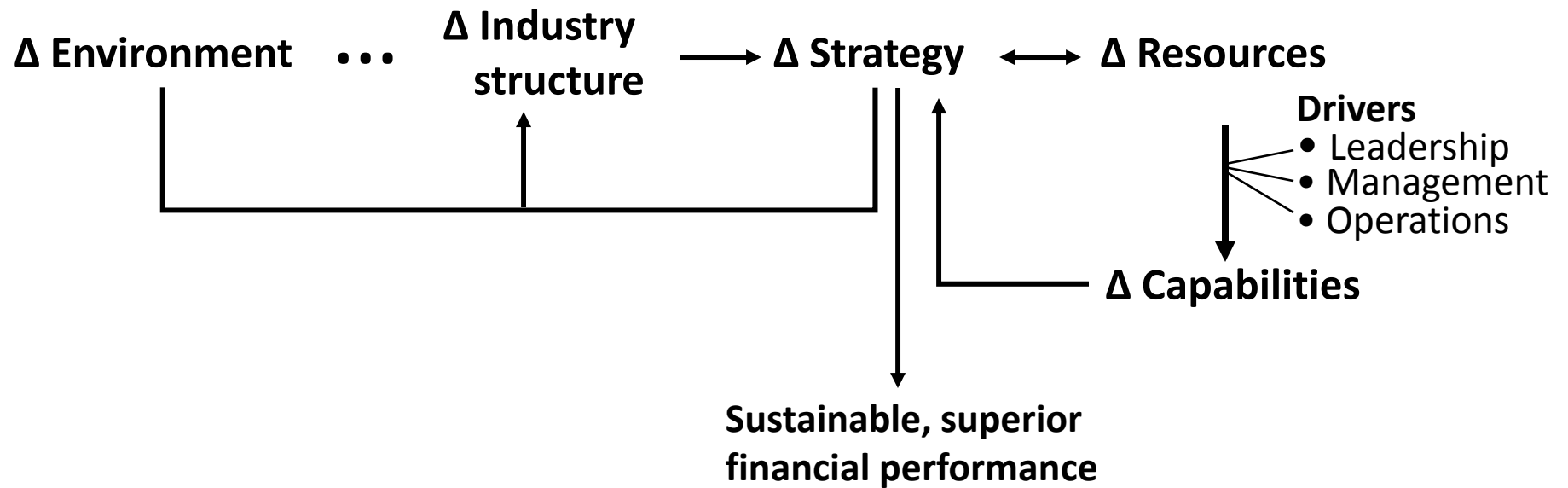
To

Intangible assets



Remember:

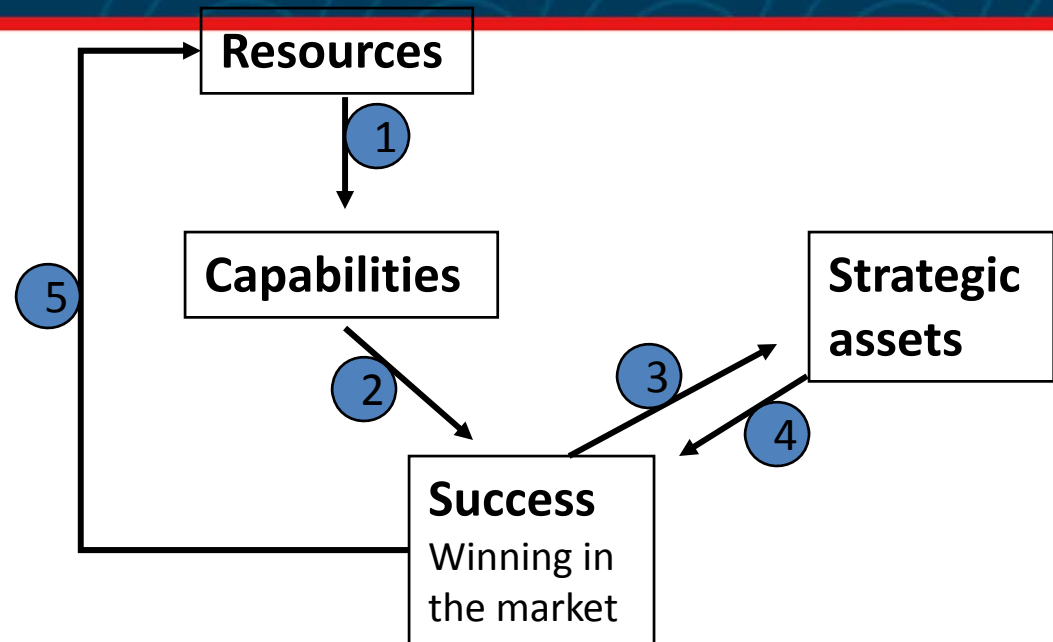
An organization's strategy describes how it intends to create value for its shareholders, customers, and citizens.



The relationship between resources, capabilities and strategic assets

People. Innovation. Excellence.

- 1 The translation of resources into capabilities. Driven by:
 - leadership
 - entrepreneurial management
 - operations
- 2 Competing on the basis of superior capabilities.
- 3 Over time, success resulting in the development of strategic assets.
- 4 As the firm acquires strategic assets, it begins to compete on the basis of potential advantages.
- 5 Success results in the continued expansion of the firm's resources.



Determination of the factors underlying success and failure of the individual business firm is the heart of the strategic management discipline

- That firm should :
 - create and maintain **a fit** with their environments.
 - align its strengths and weaknesses with the opportunities and threats of its environment.
 - this alignment with the environment should be more tight than those of its competitors.
 - while **survival** and **success** is reserved to the **fittest**.
- The **decay of competitive advantage** caused by **environmental discontinuities** (changes in the environment)

That firms are expendable (spread, enlarged) and that success, at best, is an impermanent achievement

- The strategic management discipline still lacks a dynamic theory of strategy.
- There is need for analytical techniques (a dynamic mechanism) for dealing with the transformation of firms and environments.
 - The **synthesis** (to put together) to answer the research question of failure of the firm after long-standing success is **economics** because economics is the science on which the contributing theories to the synthesis [both evolution (the economics of nature) and strategic management theory (the economics of the firm)] are grounded.
 - **Economics itself is the science of the efficient allocation of scarce resources [can either be coordinated by the market (competed for dominance) or through the hierarchical control mechanism (transactions that are coercive instead of voluntary; the benefits of the economies of specialization of labor and machinery in production)**

The Process of Identifying The Journey Presents The Main Challenge

- **Sustainable** Competitive Advantage is a journey and not a destination – it is like tomorrow which is inescapable but never arrives, only becomes meaningful when this journey is experienced.
- In fast-moving competitive environments, the nature of the journey itself keeps changing in an unpredictable fashion.

To Develop Competitive Advantages

- The primary focus is on the existing resources which are treated as being largely static and unchanging.

To Develop Sustainable Competitive Advantage

- The dynamic environments ceaselessly call for a new generation of resources as the content constantly shifts. The resources of an organization as a dynamic concept.

**What is meant by the terms
“sustainability” and “competitive
advantage”?**

The question is difficult, because:

1. The organization has to focus on its **existing resources** in exploiting **existing business opportunities**.
 - Competitive advantage = the **attributes** (ciri, sifat) and **resources** of the organization that allow it to currently outperform others in the same industry or product market.
2. The organization has to develop, **at the same time**, a **new generation of resources** in order to sustain its competitiveness. **Sustainable competitive advantage** involves creating safe havens (**how to derive unique areas of value added in the future**) from competition by continuously creating gaps through **unique resources** that cannot be easily bridged by competitors.
3. There is, therefore, a need **to balance living resources** and **unborn resources**.

Viewed in this way, **sustainability is essentially a dynamic process** assumes **two primary pillars:**

- **1. Resource management** (meeting the competition today, using resources developed in the past) and
- **2. Resource development** (aims to satisfy the competitive challenges of tomorrow, using resources that will have to be developed for future competitiveness).

Without Considering both **the**
present and **the future** there
is no context for **sustainability.**

A new concept is required, which helps organizations to develop the ability to remain competitive in the future while exploiting existing opportunity).

This new concept is referred to as **strategic advantage.**

Strategic Advantage?

Strategic Advantage is an **organizational dynamic** and **unique resources** that **determine its competitive renewal** (this concept is more proactive than competitive advantage).

Competitive advantage is the degree to which the organization, under free market conditions, meets the demand of a particular market while simultaneously maintaining and growing its profit levels (is limiting as it is a static concept **based on post rationalization**). **It does not explain how it can be sustained in dynamic business environments.**

post rationalization is the act of giving *meaning* and purpose to actions after they have been conducted

Strategic advantage, on the other hand, encompasses a broader perspective whereby it:

- **provide** the organization with the **unique ability to develop a strategic direction that creates new opportunities and shape the future of its competitive environment.**
- **represents the source of resource leadership** in one or more product markets.

For many organizations, the current mindset centers around the **optimization of resources.**

This mind set is driven by, a particular technology such as those found in the cars and chemical industries and in the many manufacturing plant which usually do not lend themselves to radical change. It finds an outlet in such strategies as being **the lowest cost producers (Porter, 1980)**, **exploiting economies of scale (Besanko *et al*, 1996)** and **developing new supplier relationships (Williams *et al*, 1994)**. The aim should be to develop **new resources** that can lead to **new performance standards** and hence the establishment of **new business opportunities.**

In essence, **strategic advantage** is the **radical advantage** that **renews the competitive edge** of an organization in a dynamic environment. Such an advantage is the response to the steady degradation of the existing competitive advantage.

Examples of competitive resources are:

- **idiosyncratic (istimewa) technologies**
- **knowledge resources,**
- **patents,**
- **location advantage,**
- **reputation**
- **brands.**

Strategic resources refer to those **unique resources** of an organization which introduced **create a gap that cannot be bridged by the competition.**

- **resources which will change the rules as well as the nature of the game** (i.e. the old game is over), and
- **resources** that ensure the organization will remain in the game as long as it continues in its existing form.

Implications and opportunities for dynamic resource-based strategy

- This requires understanding the relationship between strategy and rent and the timely introduction of strategic resources.

The concept of rent introduced by Ricardo (1817)

Whether rents are generated through valuable land, location advantage, patents, monopoly, high entry barriers of innovation, **the central focus of resource-based strategies is on the, continual search for rents.** Although rent is useful conceptually and difficult to calculate in practice, **the focus of analysis for sustainable competitive advantage is best based on rents rather than profits.**

- **First**, profit is an accounting concept based on the artificial definition of resources.
- **Second**, using profit, quantification of assets is based on historical costs rather than a broader concept of potential usage.
- **Third**, with profit it is not possible to identify the quality of assets beyond simple numerical values.

The ability to generate rents in dynamic environments

- **the speed at which movement is planned and introduced in destabilizing market values.**
- The speed at which an organization moves its market requires creating and sequencing a chain of strategic resources and timing their release into the market in a manner that ensures demand and relevance.
- **timely introduction of strategic resources in ensuring sustainable competitive advantage.**

Sustainable competitive advantage is the product of enjoying both competitive advantage and strategic advantage.

Planet sustainability

In a sustainable world, all the processes by which things are produced, once established, would be **capable** of being carried on unchanged for an infinite period without causing a progressive deterioration in any factor, human or environmental, that they affected or on which they relied.

By our definition, **the set of processes by which the needs of most of human kind is currently met, the world economic system, is seriously unsustainable. The most obvious reason is that**

1. these processes release into the atmosphere each year such large quantities of **carbon dioxide** and **other greenhouse gases** that they have overwhelmed the **planet's natural absorption capacity** and

are causing the climate slowly to change in ways that are, on balance, almost certainly unfavorable. **At best, severe storms are expected to become more frequent and tropical diseases to spread. At worst, a new ice age might be induced.**

(Fowler and Mooney, 1990, FAO in UN; 89).

2. the world economy is unsustainable is that because it employs **agricultural methods** that cause soil to be lost at up to **thirty times** the rate it is being created and diseases is being neutralized to such an extent that within a few years it could become impossible to grow one or more major food crops however much insecticide or fungicide is applied

3. that the world economy is unsustainable is that some of the chemicals it employs **mimic human hormones** and disrupt the body's endocrine system. As a result, the sperms count of European men has been falling at 3% per year since these chemicals came into use after the Second World-War (**Swan et al, 1997**). The same chemicals are also causing increases in testicular and breast cancer (**European Workshop, 1996**) and causing fewer boys to born relative to girls. Moreover, a higher proportions of these boys than ever before have defective genitals. In short, the world economic system is undermining humanity's ability to reproduce itself. **If the human race is not sustainable than neither is its economic system.**

Many more examples of the **unsustainability** of the world economy could be mentioned but the three above are enough to make it clear **that the processes by which most humanity lives have to be changed radically before we can rely on being able to continue for very much longer without bringing one or more catastrophes upon our heads.**

People sustainability

Slowing the rise in human numbers is
essential for the planet

By [Robert Engelman](#) (June 10, 2009), [156](#)

More people **once meant** more ingenuity
(natural capacity of cleverness), **more talent** and
more innovation,
today it just seems to mean *less for each*. **Less**
water for every cattle
(**The United Nations** projects there will be more
than **four billion people** living in nations defined
as **water-scarce** or water-stressed by **2050**, up
from **half a billion** in **1995**.)

Less land for every farmer

(At a bit less than six tenths of an acre, global per capita cropland today is little more than half of what it was in 1961, and more than 900 million people are hungry.)

Less capacity in the atmosphere to accept the heat-trapping gases that could fry the planet for centuries to come.

**There are 6.8 billion of us today,
and more are on the way.**

How many People can Live on Earth Martin

Desvaux PhD MInstP CPhys

As early as **470 BC Plato** asserted: “A **suitable total for the number of citizens** cannot be fixed without considering the land...”

A Brief History of the Impact of Human Development

In 1961 E.S. Deevey published a graph which shows how the world population had grown over the last million years. His data show up three major phases of human development.

- 1. The first phase** relates to the prehistoric hunter-gatherer¹ period during which the human populations in their progressively evolving types are estimated to have grown from the order of **100,000** to around **seven million** over the **one million years** prior to **8,000 BC**. It is worth reflecting that prehistoric societies **grew** at an *average* of **seven people per year**. The human race might have died out around 900,000 years ago.
- 2. The second phase** started around **8000 BC** with what has been termed the Neolithic transformation. European and Middle Eastern peoples gradually began to develop agriculture and domesticate animals. The resulting increase in the food supply enabled the world population to grow to **500 million** by **1600 AD** - a growth rate 165 times faster than

1 This includes homo *erectus* (well established by 1 million years ago) and homo *sapiens* (dating from around 100-150,000 years ago).

- The Neolithic transformation drove the development of building, transport, irrigation and many other technologies of civilisation.
- The **gradual emergence of science** and its application through engineering in the **eighteenth century** led to the **Industrial Revolution** (third phase).
- After **Columbus (1492)**, the **colonization** of new lands provided **more food and wealth** for the **European powers** - creating the **Third World** in the process².

- The subsequent industrial revolution led to **development of coal-fired engines, factories, more efficient agriculture and food production**, as well as **faster transportation between and across continents**. The consequential **increase in the food supply**, coupled with emigration to new world countries, resulted in **more and larger families**.
- The **19th** and **20th** centuries saw the rapid increase in inventions powered by the exponential exploitation of **coal, gas** and **oil**. These had a positive feedback on the **food supply** by enabling, among many other innovations, the production of **pesticides** and **fertilizers** and **automated farming** to flourish.

In the industrialised world, the development of **modern medicine** lowered **infant mortality** rates and increased **longevity**. Inevitably, control of death without a corresponding control of birth rate caused an **11-fold** explosion in population to **over 6.7 billion** in just **250 years**. During this phase, the human population increased at an average annual rate of 15 million – 2 million times higher than the first phase of development.

PLANET sustainability

Human Impact

Not surprisingly, the impact of this population growth on the environment since 1750 has been extensive. Now, not a day goes by without news of droughts (kekeringan, kemarau), floods, famines, conflicts over resources, extinctions (pemusnahan), and, in the last 20 years, the increasingly evident effects of global warming (pemanasan global).

This *impact* has been expressed in what has become known as the **Commoner-Ehrlich Equation**:

$$I = P \times A \times T.$$

Where:

- I** = the *impact* on the environment
- P** = the **population** size
- A** = the '*affluence*' (defined as the resources a population consumes and wastes)
- T** = **technology**, through which we (1) prolong life, (2) produce things more quickly and cheaply (thus feeding back into consumerism and affluence) and (3) grow food faster.

This equation thus neatly summarises the impact of humankind (people) on the planet.

2 For a thorough treatment of this topic, see Clive Ponting's book "A New Green History of the World"; ISBN 978-0-099-51668-2 Chapter 9.

The reality of the impact has been: **deforestation, soil erosion, increased salinity of the soil, pollution, waste disposal to landfill, desertification, declining fish stocks, biodiversity loss, global warming, rising sea levels and climate change.**

Politicians, unsure what to do, offer solutions which include suggestions such as: **develop fuel-efficient cars; change to efficient light bulbs; fly less; build renewable energy and nuclear power plant; increase mass transit systems; and plant trees.** These solutions only address the reduction of the *affluence* and *technology* variables of the equation, but never the *population* variable.

- to maximise their economic growth via consumerism. So, realistically, *impact* will continue to rise since economic growth demands it. This is bad news since, as we will now see, human impact on the planet is already unsustainable.
- To throw some light on this, we need to use a **tool** called **ecological footprinting** developed in the 1990s by William Rees and Mathis Wackernagel. It is now used by the **Global Footprinting Network (GFN)**, which publishes annually **the ecological parameters** for every country in the *Living Planet Report* of **WWF**, formerly the **Worldwide Fund** for Nature. The latest of these reports appeared in 2003 and gives footprinting statistics for 2003. What follows is based on data taken from that report.

Biocapacity

Ecological footprinting measures the impact of human populations on the planet. It first measures how much resource the planet generates in a year and then calculates how much we use: a biological income - expenditure account. On the income side, the total biological product over a year is called the planet's *total biocapacity* and is defined as the biologically productive area of land and water arising from forests, croplands, grazing lands and fishing grounds available to:

- a) produce sustainably all the biomass (the amount of living matter – volume of habitat) we use and
- b) absorb all the waste we produce, including CO₂ emissions

3 The next assessment is due in 2008.

Total biocapacity is measured in ***global hectares*** - defined as the total biocapacity divided by the total physical area generating it. In **2003** the earth's total biocapacity was stated to be 11.2 billion **gha** (Ggha). However, a more useful measure is the *biocapacity per head of population* in units of *global hectares per capita* (*gha/cap*). Called simply *biocapacity*, **this describes the *average* land area available to sustain each person.** In **2003**, since **there was a population of 6.3 billion** humans sharing the earth's 11.2 Ggha, the biocapacity was therefore **1.784 global hectares per person.**

Ecological Footprint

- Looking at the **expenditure side**, what we actually use per head of **population** is termed the **ecological footprint**. The GFN (Global Footprinting Network) measures this on a country-by-country basis and by summing the national footprints, the global ecological footprint is obtained. In **2003** the world's ecological footprint was 2.23 gha/cap, which **exceeded its biocapacity by 25 per cent** $[(2.23-1.78=0.45)/1.78=25.3\%]$. This *overdraft* of 25 per cent represents the land equivalent of the energy provided by fossil fuels⁵ (our inheritance) and the missing land needed to absorb our waste CO₂. In other words, because all of our carbon waste cannot be absorbed by vegetation, it is being dumped into the atmosphere and causes global warming. In **2003**, **one and a quarter planets were needed indefinitely to sustain the population of 6.3 billion**⁶. We have clearly been living well beyond our ecological income by drawing on the fossil fuel legacy, a situation which is unsustainable in the long term and, therefore, cannot continue.

Sustainable Population Hyperbolae

- At the sustainability limit, the relationship between population and the biocapacity is a hyperbola and this suggests a novel graphical way of presenting footprint statistics.
- **There are 2.5 acres to the hectare, so the sustainable footprint was about 4.5 acres per person.**

- For the avoidance of doubt, fossil fuels are not a part of the biocapacity. The latter is a measure of the bio-product from a prior 12-month period. In contrast, fossil fuels are the stored product of biomass from bygone eras which has, through **bacterial activity** over **200 million** years, been transformed into a highly **combustible organic hydrocarbon**. It is a one-off legacy, never to be repeated in the human era.
- The carbon component of the world footprint was 1.06 gha/cap which means that, without fossil fuels, the world would have been living sustainably at 1.17 gha/cap instead of 2.23 gha/cap in 2003, but at a lower comfort level in the developed world.

- A serious effect of global warming will be a reduction of the earth's total biocapacity through shrinkage of productive land area due to rising sea levels, storms, droughts, floods and deforestation.
- Consider the 11.2 billion global hectares total biocapacity mentioned earlier. When it is divided by the population 6.3 (expressed in billions) it yields the world's biocapacity of 1.78 gha/cap. At the sustainability limit, the total ecological footprint is equal to this 11.2 billion hectares of biocapacity. Thus, at the limit of sustainability, the relationship

population (P) x mean per capita ecological footprint (Fm) = total biocapacity

holds true. P is therefore inversely proportional to Fm; the larger the population, the smaller the sustainable footprint and vice-versa. Thus, for the world, the equation

$$P \times F_m = 11.2$$

is an hyperbola in which P , F_m and 11.2 are expressed in units of *billions*, *global hectares per capita* and *billion global hectares* respectively.

the world population is therefore ***unsustainable***.
It can easily be seen that a **footprint of 2.23 gha/cap will only sustain 5.1 billion people.**

Plotting various national footprints on the world sustainable hyperbola (Figure 5) is instructive. For example, if everyone lived with an average EU lifestyle of 4.8 gha/cap, then Earth would sustain only 2.34 billion people; an American lifestyle at 9.4 gha/cap could only sustain 1.2 billion.

Tracking the World Footprint

GFN world data go back to **1961** (Figure 7) when the population of **three billion** resided firmly in ‘**sustainable space**’ with a **mean footprint of 1.5 gha/cap**. Between 1980 and 1990 it crossed the sustainability limit and, by 2003, had progressed into “unsustainable space”. Until 1990, the path into unsustainability **was due to a combination of increasing ecological footprint and population**.

- **After 1990, however, population increase became the driver towards further unsustainability;**
- **The UN predicts that by 2050 the world population will exceed nine billion.**
- **Without a serious international attempt to bring the world population back towards sustainability,**
- **Instead, the price will be extensive human suffering, through resource wars and starvation.**

9 'Overshoot' is calculated by dividing the total 'variable' by the sustainable 'variable' , where *variable* in the above stands for *population* or *mean ecological footprint* *pita* impact on its environment.

UK Footprint

We can look at the UK hyperbola of its total biocapacity.

$$P \times F_m = 0.095$$

where 0.095 is the UK's biocapacity of 95 million gha with a 2003 population of 59.5 million. Rounding the population to 60 million and using the UK's ecological footprint of 5.6 gha/cap, we see that the UK is deeply embedded in unsustainable space with an overshoot of 350 per cent. Putting it another way, with its 2003 footprint of 5.6 gha/cap a sustainable population would be only 17 million people.

This means that the UK has currently 43 million more citizens than can be sustained in the long term without relying on other countries to keep its larder stocked and to accept the global warming consequences of its waste emissions. To live sustainably, the UK population of 60 million would have to live with a footprint of 1.6 gha/cap - a level corresponding to those of countries such as China, Paraguay, Algeria, Botswana.

10 The foregoing assumptions, as well as the assumption that the emissions footprint in 1990 is sensibly the same as that in 2003, introduce second order approximations into the argument. However, these do not have a significant effect on the conclusions. e Dominican Republic.

11 In October 2007, government (ONS) figures projected that the population will be 71 million by 2031 and could exceed 85 million by 2081. See: Government Actuary's Department (ONS) Population Projections

Conclusion

- The Global Network footprint statistics show that, globally, we left sustainability behind during the late 1980s. Since then, increasing world affluence and populations have driven us deeper into unsustainable territory. The carbon dioxide emissions of each country pollute the atmosphere for every other nation and the human urge to improve its *affluence, or impact through technology* – no matter how well off it already is – is a driver that seems set to continue. **It follows that if it is not possible to constrain *affluence* and *technology*, then the only parameter left to constrain and reduce is *population*.** The ecological footprinting data analysed in this paper have given guidelines. **A sustainable global population is around two to three billion people** – providing the world settles for a mean ecological footprint somewhere in the range of 3.5 to 5.5 gha/cap; for the UK, the corresponding figure works out at between 17 and 27 million.

- The means of achieving such goals lie beyond the scope of this paper; however, there is extensive literature and research on the techniques involved in **successful family planning and population limitation programmes**, both on the website of the Optimum Population Trust and elsewhere, and there are many practical examples of states that have introduced them, and reaped corresponding benefits. **Politicians need to demonstrate courage and leadership on this issue:** they must not only persuade their nations to accept the **necessity of smaller families but also provide the means for people to reduce their family size.** Failure to do so risks the worst population crash in the history of humankind.

Corporations like Monsanto are playing God with the food supply.

- By doing this, the corporation can **control intellectual property (seed patents)** and demand royalties on seeds
- **In doing so, this gene terminator technology is a crime against both nature and humanity.** If you guessed Monsanto, you're right. Click here to read news about Monsanto's terminator gene at the Organic Consumers Association.

You can also follow the news on this topic at BanTerminator.org.

- GM soy products, you're already supporting the corporations that are altering the food supply. Seedless grapes are not natural, and they remove the very part of the grape that contains powerful cardiovascular medicine. Have you ever heard of the nutritional supplement called grape seed extract? Guess where it comes from? ... Grape seeds, of course. It's some of the best cardiovascular medicine known to modern science, far more potent than any prescription drug, yet with zero negative side effects. Yet food companies have removed it from the food supply and promoted "seedless grapes" as a benefit to consumers! (Of course, grape skins also contain powerful medicine called resveratrol, but grape seeds contain different medicines called proanthocyanidins and PCOs, which you can read about at the Physician's Desk Reference).

What's at risk: the future of human life on planet Earth

In this cartoon, the farmer character is fretting over something the entire human race is going to suddenly realize one day: **Playing God with seeds and the food supply for the purpose of extracting maximum corporate profits is to place the very future of humankind at extreme risk.** Suppose the terminator genecrops somehow cross-pollinate staple food crops that now feed the world... what happens then? Imagine all the wheat grown in the United States suddenly self-destructing after a single growing season. Mass starvation would quickly ensue, followed by economic collapse, military action and quite possibly the collapse of the nation itself. And the same is true in Europe, Australia, Asia and South America, too.

This is what's at stake with terminator gene technology. For the sake of maximizing corporate profits, the Monsanto corporation is willing to place the very future of humankind at risk. But it's no surprise to learn Monsanto is behind this crime against nature — this is the same corporation that tried to patent the pig, claiming it owned the genetic code of hogs. This is also the same corporation that promoted aspartame to the world by purchasing a company called Searle, whose CEO was a man named Donald Rumsfeld. He strong-armed the FDA to get aspartame approved as “safe,” and we've seen alarming increases in brain tumors and neurodegenerative diseases ever since.

Food sustainability

The future of food:

Why GM (genetically modified) crops threaten the sustainability of the human race?

Profit sustainability

The future of human life on planet Earth

Playing God with seeds and the food supply for the purpose of extracting maximum corporate profits is to place the very future of humankind at extreme risk.