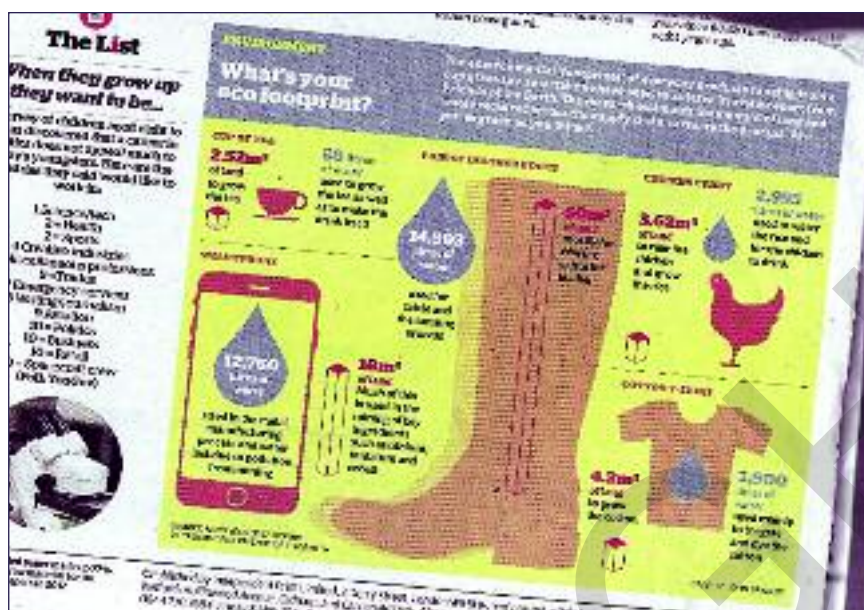




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A flawed report of concern to the leather industry

The information presented in the image above was published in May in the 'I' – a daily briefing newspaper with a circulation of some 300,000, an offshoot of its parent newspaper, *The Independent*, a UK national paper with a circulation of 60,000. In this article and one that follows, we address some of the ways in which the industry can respond when faced with flawed criticism.

The newspaper graphic shown above appeared in an article published by the 'I' on the subject of the environmental impact of a series of everyday consumer products, including a pair of leather boots. This followed the publication of a 42-page report on the subject from campaign group Friends of the Earth, which uses data compiled by the consultancy group Trucost. This report should be studied by tanners and those associated with the leather sector and is available on Friends of the Earth website under the title *Mind your Step*. Details pertaining to the leather sector are quoted in four sections and are set down here in *Panel 1*. The content in *Panel 2* is extracted directly from *Mind your Step*.

Unsubstantiated information

All consumer goods use up resources, and that there is no exception to this rule. It is creditable that organisations seek to determine the true cost of demands on natural resources, and this should be supported.

However, it is essential that, where any figures and data are used in studies of this type, the information should be made absolutely clear, and the report and findings presented free from any manipulation to serve any agenda other than the presentation of true facts.

The following comments are made concerning *Mind your Step*:

1] This report allocates a significant quantity of the total water and land area demands for raising cattle for meat consumption to the hide. This value has then been added to a water use allocated to actual leather manufacture, and then stated as a land requirement of 50.2m² of land, and a water demand of 14,500 litres (25,000 litres if the waste from leather manufacture is untreated) to create the leather for one pair of boots.

It is true that cattle need water and land to grow and mature, but the purpose is to provide meat for human consumption, the hide being a waste by-product from the meat sector. It should be remembered that it is fortunate for the meat sector that the leather sector exists, otherwise the cost of meat would have to include the treatment and/or disposal of the hide.

At present, the impact of a piece of leather in terms of its environmental footprint is a matter of wide discussion. Values, rising from a zero percentage allocation of the footprint of an animal, are being mooted. It is in the interests of the powerful meat sector to load as high a percentage of the footprint onto leather as possible to minimise its own environmental footprint.

**Panel 1: Leather related values set down in “Mind your Step” - the land and water footprint of everyday products****1] THE FRIENDS OF THE EARTH EXECUTIVE SUMMARY**

The following statement is made:

“A pair of leather boots requires 50.2m² of land and 25,000 litres of water; yet if the waste from the leather tanning process is treated in a waste treatment plant, water demand is reduced to 14,500 litres”. *These are the values that are used in the illustration given as Panel 2.*

2] FRIENDS OF THE EARTH OVERVIEW – THE FOOTPRINTS

The following statement is made:

“Out of the products analysed for this report, the largest land and water footprints were for the pair of leather boots. Supply chain analysis shows that almost all of the demand for land (86%) is for the cattle that provide the leather. The water footprint is made up of green water, needed to grow the cattle feed, and grey water used both to deal with the pollutants from cattle farming and during the leather and tanning processes.⁶ (Reference 6 states: *This reflects grey water use where no waste treatment plant is used.*)

Leather processing requires more water if the waste products are not dealt with in an effluent treatment plant – however the modelling showed that leather had the largest water footprint of all the products, even assuming a treatment plant was used.

While the footprint for leather is large, clearly leather is only one of the products to come from cattle, so it shares the environmental impact of rearing cattle with other products. The market for leather (including bags, shoes, and furniture) is however a factor in determining the economic basis for beef farming and the overall environmental impacts must be taken into account.

Even if the water used to raise the beef is discounted, the water footprint for leather (with no waste treatment) still exceeds the water footprints of the other products. In some parts of the world, such as Bangladesh, tanning plants do not generally use or have access to waste treatment facilities.”

3] FRIENDS OF THE EARTH DESIGN MATTERS

The following statement is made:

“As the different sized footprints for the pair of boots show, how a product is made can make a big difference to its demand for natural resources. The smaller footprint is based on a pair of leather boots made from leather from a tannery that treats its waste water at a modern treatment plant. The larger footprint is for a pair of boots from a tannery where the waste is not treated, polluting local water courses, and having a far more damaging environmental impact.”

This statement is supported by a figure setting down the water footprint of a pair of leather boots with and without effluent treatment, showing a use of 25,024 l water for leather made without effluent.

4] FRIENDS OF THE EARTH THE FOOTPRINT OF A PAIR OF BOOTS

The following statement is made:

The UK spent £4.3 billion on footwear in 2010 – and sales of boots and shoes are growing.⁸ But analysis of the footprint left by a pair of leather boots on the natural world reveals a hefty imprint, particularly in parts of the developing world.

There are three main stages in the supply chain for a pair of leather boots, stretching across the globe. The raw material for leather

usually comes from cattle farming (although other skins can be used). China is the global leader in the animal skin market, with Brazil and the United States close behind. The boots in the model were made with cow-hide from Brazil. The skin goes to a tannery, where it is treated with chemicals (often highly toxic chromium), soaked, and then dried to produce leather, before being sent for manufacturing. Four out of every ten pairs of shoes in the world are made in China, with the shoe manufacturing sector also strong in Italy, Brazil and India.⁹

It takes an area of land as big as a cricket pitch to make 200 pairs of boots. The largest factor in the land footprint for a pair of boots is from cattle farming (86%).

The size of the water footprint however depends on where the skin is treated. Tanneries that have effluent treatment plants have much smaller water footprints than tanneries that dump their waste.

If the effluent is not treated, some 10,500 extra litres of grey water are needed for every pair of boots to deal with the chemical waste.

Leather’s unhealthy tanneries

The tannery industry in Bangladesh is concentrated around the Dhaka suburb of Hazaribagh, where few if any of the tanneries treat their effluent. Hazaribagh has been ranked as the fifth most polluted place on Earth,¹⁰ with some 22 million litres of toxic waste dumped in the Buriganga River every day.¹¹

Workers in the tanneries, including children, are exposed to a range of dangerous chemicals, including hexavalent chromium, a known carcinogen. Workers and local residents report a range of health problems, including respiratory problems, acid burns, dizziness and nausea. The Bangladesh government wants to move the tanneries to a new district, complete with a purpose built effluent treatment plant, but wrangling over costs has delayed the clean-up.¹²

With proper waste treatment, the water footprint for a pair of boots is reduced by 42%, with the main demand for water coming from the cattle farming stage of the supply chain. Some 10,700 litres of green water are used to grow the cattle feed, while a significant quantity of grey water is required because of the animal waste. Although leather is just one of the products of the cattle industry, its full impacts must be recognised.

Additional content

The text in this section is supported by figures that:

- Compare volumes of blue, grey and green water used in the production of a pair of boots with and without effluent treatment.
- Show the distribution of land and water used across the supply chain for a pair of leather boots, with waste treatment

References and notes

The references and notes for all of the statements made in this report that appear relevant to leather are listed as follows:

6 *This reflects grey water use where no waste treatment plant is used.*

7 www.greenpeace.org/international/en/press/releases/APRILS-sustainability-policy-a-license-to-continue-forest-clearance/

8 www.mintel.com/press-centre/mintel-corporate/mintels-british-lifestyles-report-reveals-consumer-reaction-to-the-age-of-austerity

9 www.mvonderland.nl/system/files/media/research_on_sustainability_in_the_leather_supply_chain_final_report_june_2013.pdf

10 www.worstpolluted.org/docs/TopTenThreats2013.pdf

11 www.hrw.org/sites/default/files/reports/bangladesh1012webwcover.pdf

12 www.dhakatribune.com/bangladesh/2013/nov/07/relocation-hazaribagh-tanneries-end-next-year



Currently, these values have not been agreed, and those proposed vary with the system boundaries applied (where the footprint starts) and the contributory factors that are included or excluded, e.g. carbon sequestration by farm land, which can significantly reduce the carbon dioxide emissions of cattle rearing.

We believe that responsibilities for the environmental footprint of leather should start with the removal of the hide at the abattoir, as it is a waste product for which good use has been found. It is impossible to imagine a situation where cattle could ever be reared and husbanded specifically for the hide.

Accordingly, the environmental footprint of the animal should be allocated to the meat sector – or shared between the dairy and meat industries as appropriate. Regardless, decisions will be made concerning the environmental impact of hides and skins, and soon these will become “locked in” to the environmental impact of leather, enabling comparisons, whether valid or not, to be made with other materials.

There is no reason why land area and water requirements for raising cattle should not be of valid consideration, but this should be scientifically and responsibly evaluated. In this situation, it appears that Friends of the Earth has addressed this scenario by taking statements made by a commercial consultancy Trucost.

These statements, however, are not supported by any calculations in the main body of the report or the annex to the report. Statements are made by Trucost, but there is no data offered for quantification, consideration, study or analysis. It appears that Friends of the Earth has been misled, and that the report is simply a statement of belief from a single viewpoint. There is nothing of substance in this report as a basis for meaningful discussion. In fairness, it should also be noted that there is no statement of the brief given by the organisation to the consultancy.

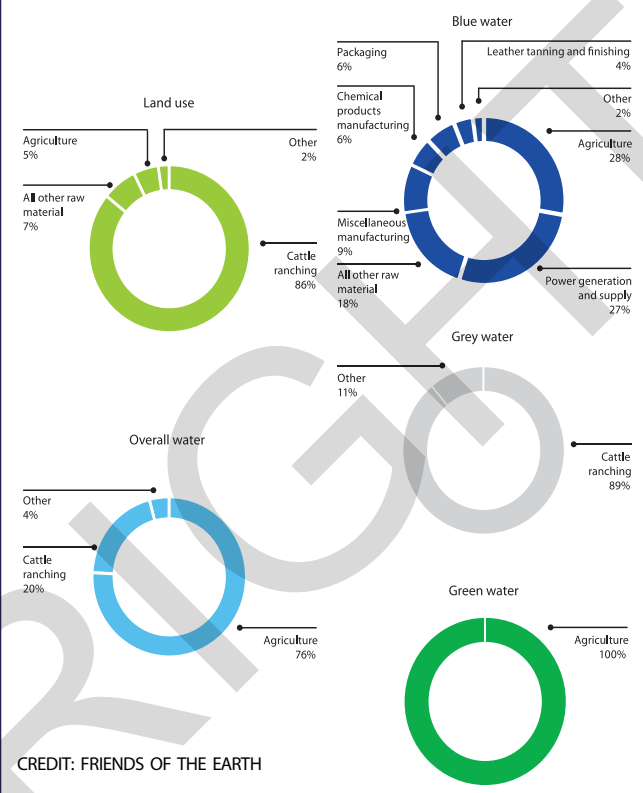
It is difficult to make comparisons with other industries, as the leather sector is probably the world's most successful example of turning waste that is unwanted into a useful and viable material. But it would be difficult to imagine, say, if the waste leaves, stems and roots of green vegetables could be converted into a useful and durable value-added product, that the new product should carry a load of land requirement and irrigation of the main crop.

Similarly, where rice husks are converted into bio-fuel pellets, should this innovative approach to conserve fossil fuels be loaded with the high water and land requirements for growing rice? And, as the waste and offal from cattle slaughter is greater than 40% live weight of the animal, where this is subject to anaerobic digestion, should the resultant bio-energy created also carry a water and land loading?

2] It is not clear where the data has been obtained from concerning the husbandry of cattle, only that the focus is on Brazil. The values set down in the figures and allocated in diagrams might have a source somewhere, but where this information has been obtained, and why or how it has been used or allocated is completely absent.

3] The focal point for leather manufacture shifts from cattle rearing in Brazil to manufacture in a discredited area in Bangladesh that is recognised as not being representative of the global leather industry. *Mind your Step* offers no explanation for this shift in focus. The vast majority of tanners globally are very responsible in terms of the environmental impact of leather manufacture and their responsibilities to employees and the wider community.

Panel 2: Distribution of land and water use across the supply chain for a pair of leather boots, with waste treatment according to Friends of the Earth.



4] It is not clear where the values for water consumed in leather manufacture used in the report have been obtained. Before 1990 the figures for water use were mainly stated as 25m³ to 50m³/tonne of hides. A higher value was then quoted to cover bad practice at that time at 60m³/tonne.

In 1995, a set of pollution values was produced by the International Environment Commission (IUE), at Friedrichshafen, Germany, which set down a range of 12m³ to 37m³/tonne of hides processed. Also in the late 1990s, the United Nations Industrial Development Organization (UNIDO) made a series of investigations both in workshops and in practice to obtain water usage values for shoe leathers. Here a value of 15–30m³/tonne input weight of hides was found as appropriate – based on basic processing at that time and without any benefits of current best available technology.

Since then considerable advances have been made in leather manufacture in terms of in-house recycling of water, and the standards of effluent treatment. The total values being used at the moment by an efficient tannery are said to be between 10–25m³/tonne hide weight, and an EU industry estimate is said to be 130 litres/m² of leather which is mainly in line with these water-to-weight values. In addition, it should be remembered that the water is not actually consumed. Responsible tanners treat the effluent and it is returned to the environment according to parameters and volumes as set down in national and international Consents for Discharge, and enforceable by legislation.

One surprising situation should be noted. In the Ranipet area, Tamil Nadu, India, a cluster of around 95 tanneries are discharging effluent into the Ranitec Common Effluent Treatment plant. Here the effluent is treated to the highest standard, including a recycling of 95% of the volume received as



high-quality water back to the tanneries (5% allowance for evaporation). No effluent is discharged from the site as a policy of Zero Effluent Discharge is in place. This is unusual, but provides a model for India.

5] It is also noted that in *Panel 1*, Section 3, there is a subheading entitled “Leather’s unhealthy tanneries”. All of the issues set down in this section are condemned by responsible tanners, and it would be far better for the whole leather industry if these tanneries – and any others that do not perform to high standards – were closed by the Bangladeshi government or appropriate authorities.

Concerning the organisation’s statement regarding hexavalent chromium, a known carcinogen, no instances have been found where hexavalent chromium is used for making leather. However, this and similar statements are commonly used by organisations with an anti-leather or anti-meat agenda.

6] On the same day as the report about *Mind your Step* appeared in the “I”, a one-page statement was issued by Henry Chown of Friends of the Earth. In the opening four paragraphs of this 10-paragraph statement it states:

“Friends of the Earth has published major new research which sets out the environmental impact of making the products we use every day.

We want to live within the limits of what the planet can provide so first we need to measure what we are using. We asked environmental data experts Trucost to find out how much land and water is needed to make our food, our clothes and our gadgets - through the whole supply chain.

You can find out all about how much land and water is needed to make the stuff you use every day in our new report – Mind your Step

And it’s a lot. A pair of leather boots could take 14 tonne of water and 50m² of land to make – mostly because of the massive resources used raising cattle. An extra 10 tonne of water is used if the leather tanning companies don’t control their pollution though. Sadly that’s common in places like Hazaribagh in Dhaka, Bangladesh.”

It is also noted that the heading for this report is “How much water is there in your boots?” and the final sentence states “Right now a fun way you can try out reducing your own impact is to sign up to Meat Free May. The amount of meat and fish that we feast on is damaging our planet and our health.”

Within the *Mind your Step* report, the product selected to receive the greatest attention is leather, and this information is provided by Trucost. The statements made in this report lead to this second one-page statement, and has created a clear anti-meat agenda, with the leather sector being used as a tool for this purpose.

The promotion of leather

Whatever their agenda, the Friends of the Earth academic board members, who include teachers, should be concerned that they are presenting to schools such nonsensical statements as “a pair of leather boots could take 14 tonnes of water and 50m² of land to make”.

Equally, the leather sector should note that, in the UK alone, Friends of the Earth spent over £1.6 million in its financial year 2014 on supporter recruitment, which we must assume includes its promotional activities. (And the UK charity is just one of 70 organisations that make up Friends of the Earth internationally.)

This also raises the question of how much the international leather industry has spent on promoting its environmental credentials. 🌐

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