So what can we do about it?

Locally:

- Raise the issue of breastfeeding at environmental events.
- Give a copy of this paper to a friend.
- Write an article for a newsletter.
- Inform your elected politicians of this issue and ask for their support.
- Combat misleading information about toxins in breastmilk.
- Join or form a mothers' support group.
- Ask your employer and trade union to support policies which will provide creches and adequate maternity leave.

Nationally:

- Contact organisations working on environmental issues to ensure that they recognise and publicise the ecological benefits of breastfeeding.
- Join one of the groups which campaign to force baby milk companies to end their unethical marketing practices.
- Join a breastfeeding promotion group and encourage networking with environmental pressure groups.
- Urge your country's government to adopt as law the WHO/UNICEF International Code of Marketing of Breastmilk Substitutes and to give mothers the right to adequate maternity leave and childcare provision.

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Resources

The Ecological Impact of Bottle Feeding, Andrew Radford, Baby Milk Action, Cambridge, 1991.

The Politics of Breastfeeding, Gabrielle Palmer, Pandora Press, London, 1988.

Fighting for Infant Survival, Information kit on the promotion, protection and support of breastfeeding, IBFAN, 1989.

'Infant Feeding, the physiological basis', ed. James Akre, *Bulletin of WHO*, supplement to vol. 67, 1989.

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The Mozambican Ministry of Health calculated in 1982 that a mere 20% rise in bottle feeding would cost the country US$10 million in just 2 years. This did not include the costs of fuel, distribution and damaged health. The Ministry also calculated that the fuel required for boiling the water would use up the entire resources from one of the major forestry projects.

Why is breastmilk a world resource?

Breastmilk is the most ecologically sound food available to humans. It is produced and delivered to the consumer without any pollution. It is a natural resource of enormous value which is usually overlooked. Its use has only positive effects on the environment. However, breastmilk is threatened by social attitudes towards breastfeeding and, more significantly, by the promotional tactics of baby milk companies.

Most people know that breastfeeding is best for babies. Fewer people realise that it is also best for mothers' health. On the other hand, bottle feeding causes the deaths of one and a half million babies every year and ill health in countless others. It also pollutes our air, water and land, wastes resources, creates disposal problems and increases population levels.

Breastmilk: A World Resource

How does bottle feeding harm the environment?

- Packaging of baby milks wastes resources such as tin, paper and plastic. If every baby in the USA is bottle fed, almost 86000 tons of tin plate are used each year in the required 550 million discarded tins. Another 1230 tons of paper are used if the tins have paper labels.
- Feeding bottles, teats (nipples) and related equipment require plastic, glass, rubber and silicon. In 1987, 4.5 million feeding bottles were sold in Pakistan alone. The number per baby will be much greater in industrialised countries (most babies in the USA have at least 6). Furthermore, Western hospitals and consumers are increasingly using 'one-trip' disposable bottles and teats.
- These materials are rarely recycled, so they increase our disposal problems. The two most common disposal methods, landfill or incineration, cause their own pollution.
- Baby milks are the end product of a number of industrial processes. The energy used to create the required high temperatures and mechanical procedures causes air pollution (acid rain and greenhouse gases) and uses natural resources in the form of fuel.
- The milk and packaging materials often travel considerable distances before processing and, once ready for the market, baby milks have to be transported to the consumer. Ecuador, for example, imports baby milks from the USA, Ireland, Switzerland and Holland. Many countries import baby milk from thousands of miles away, causing considerable unnecessary pollution.
- Water, bottles and teats have to be sterilised before use. Water and the energy to boil it are normally easily available in the North, but this is no reason to waste them. The energy usually comes from polluting nuclear and conventional power stations. In the South, water and fuel are often precious resources. A 3 month-old bottle-fed baby needs 1 litre of water a day for mixing feeds and each artificially fed baby needs at least an extra 73kg of firewood or its equivalent per year.
- Manufacturers use huge amounts of paper and other resources to promote their baby milks.

How does breastfeeding protect our environment?

- Breastmilk produces no waste: it is produced in the right amounts for the baby's needs. Mothers need only the smallest amount of extra energy, which is often taken from body fat (even under-nourished mothers can produce enough quality breastmilk to feed a baby).
- Breastmilk needs no extra packaging.
- Breastmilk is ready to use at the right temperature.
- Breastmilk does not have to be shipped around the world (but a mother has a ready supply wherever she goes).
- Most women do not menstruate when breastfeeding and therefore need fewer towels, tampons or cloths. This reduces the need for fibres, bleaching, packaging and disposal. If a baby is unrestrictedly breastfed for 6 months and breastfeeding continues into the second year, the average mother will not have a period until her baby is at least 14 months old.
- Breastfeeding passes on immunisation and other health benefits to the baby, saving lives, preventing illness and distress and saving money and health service resources.

But what about toxins in breastmilk?

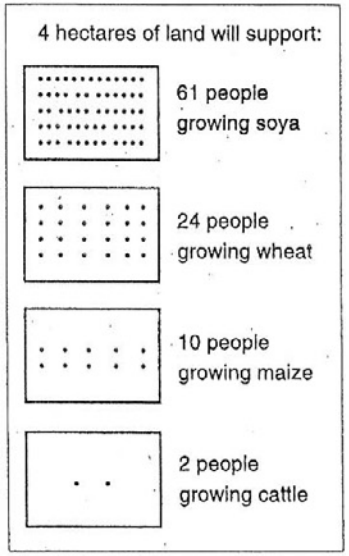
Because of the widespread pollution of our environment, some toxic substances, notably dioxins and polychlorinated biphenyls (PCBs), have been found in some samples of breastmilk. This indicates that toxins are to be found throughout the food chain. It should not be used to frighten mothers away from breastfeeding:

- Breastmilk gives a baby the best nutritional start in life and provides vital antibodies. This outweighs any possible danger from toxins.
- Studies show that any damage to a baby due to toxins is much more likely to occur in the womb than from breastfeeding.
- Whilst some breastmilk may contain very small levels of toxins, the concentration of toxins in the baby's body will not increase because babies gain weight so rapidly during breastfeeding.
- The longer a mother breast-feeds, the lower the levels of toxins in her milk.
- Dioxins are produced in the manufacture and disposal of baby milk packaging as well as during transportation. This means that bottle feeding will indirectly increase the levels of toxins in our environment.
- Artificial baby milks contain high levels of aluminium and lead and many of their other ingredients may be con-taminated with dioxins. There have been several cases of contamination of baby milks by dioxins, bacteria, other toxins and radioactivity.

Polluting cows

Most baby milks are based on cows milk. The dairy industry wastes land and resources as well as contributing to the pollution of our environment:

- Methane is the second most important gas contributing to the greenhouse effect and global warming. Cows' flatulence and excretion produce 100 million tonnes of methane every year: 20% of total emissions.



- Ammonia from cow pats and slurry tanks contributes to the problems of acid rain, attacking leaves and acidifying soil.
- The fertilisers used to grow feed for dairy cows drain out of the soil and pollute rivers and groundwater. These fertilisers and animal sewage cause rivers to become overgrown with plants, eventually turning foul smelling and virtually lifeless.
- Cows need around 10000 square metres of pasture each. Wooded land is cleared for pasture, leading to deforestation, depletion and erosion of the soil, an increase in greenhouse gases and a reduction in animal and plant species. One kilogramme of baby milk produced in Mexico, for example, costs 12.5 square metres of rainforest.
- In 1984, Ethiopia exported 10000 tons of molasses to the UK, mainly for cattle feed. The molasses were likely to have been from deforested land which could have been used to feed local people.
- Brazilian forests are cleared and burned to make way for soya plantations. Soya beans are used to feed cattle (and are also the base for some baby milks). Soya requires a high input of artificial fertilisers and irrigation.

How can breastfeeding control population growth?

A smaller global population will mean less ecological destruction, especially if the reduction is in the North where a person consumes much more energy and resources than a person in the South.

- Breastfeeding prevents more births than all other forms of contraception put together (it is also one of the few methods of birth control that does not need resources, packaging, health worker time, etc).
- In Bangladesh, breastfeeding prevents an average of 6.5 births per woman.
- Bottle feeding means more and closer-spaced births. This means that the health of the mother and existing children will suffer, especially where other forms of contraception are unacceptable or unavailable.
- More children mean that the family has to feed more mouths and meet more doctors' bills. More natural resources are needed to support the increased population.

What are baby milk companies doing?

Baby milk companies need to create a market for their milks. They do this by undermining breastfeeding. Their tactics include advertising, misleading information, promotion to health workers, giving free baby milk to hospitals and free samples to mothers. All these practices are prohibited by an International Code of Marketing adopted by UNICEF and the World Health Organisation.

All companies flout this Code. But they are not just breaking the rules; they are contributing to environmental damage as surely as companies which chop down our forests and pollute our seas and skies.

"The time is finally ripe for the ecological and economic arguments for promoting breastfeeding to make an impact on policy makers."

James P. Grant,
Executive Director,
UNICEF, May 1992.

How can further damage be prevented?

The obvious answer to this question is to ensure that as many mothers as possible choose to breastfeed their babies. However, social attitudes, lack of information and the activities of baby milk companies often mean that mothers are persuaded or forced to bottle feed.

- Baby milk companies must end the unethical marketing of their products.
- Governments should adopt laws prohibiting the promotion of bottle feeding and ensuring adequate maternity and childcare provision.
- Mothers should be enabled to breastfeed wherever they wish and all members of society should be aware of the advantages of breastfeeding.
- Environmental and other consumer organisations, as well as governments, should recognise the ecological benefits of breastfeeding.
- Health workers should be well trained in the support of breastfeeding and hospital policies should reflect a commitment to breastfeeding.