



Air-freighted fresh food: guilty pleasure or sustainable development champion?

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The Stern Review reports that emissions from aviation have been rising faster than other sectors in recent years, largely as a result of global trade. Nowhere are these concerns expressed more vocally than in relation to tourism and air freight. Yet these concerns extend only to the environmental impacts of aviation, ignoring attendant social and economic benefits. Indeed, while the climate change debate identifies air-freighted fresh produce from sub-Saharan Africa as the epitome of unsustainable consumption, research shows that over one million livelihoods are supported in part by the fresh produce trade with the UK. Furthermore, this trade complies with the highest public and private standards. This paper seeks to expand analysis of aviation's impact on sustainable development by understanding the impact that air freighting has on producer nations, particularly in developing countries.

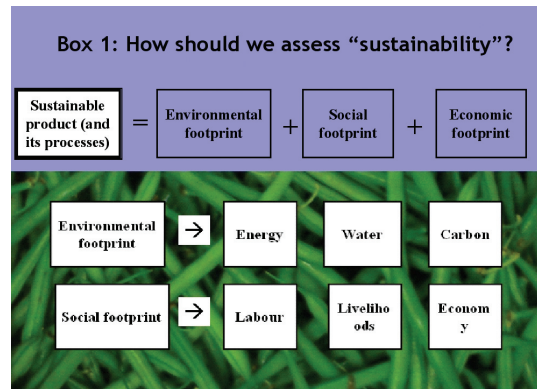
Sustainable development, not partial solutions

Sustainable development requires balancing elements to ensure we make the most appropriate decisions for the planet and its people (Box 1).

Focusing on maximising returns or minimising costs from one element – e.g the environment ('food miles') – will not provide sustainable solutions to complex global issues.

How guilty is air freight?

Air freight is clearly part of the reason planes fly, but there is no evidence that it is the primary driver of aviation. Currently aviation accounts for 2 per cent of global GHG emissions and this proportion could double by 2050. Yet, within the aviation industry it is difficult to discern the driver for expansion. In 2006, in the UK, air freight, passenger volumes and flights all grew by 6 per cent. Air freight itself is the result of a complicated decision-making process involving subsidies,



middlemen (freight forwarders) and passenger volumes. For instance, new routes opened recently by South African Airlines are driven by business passengers. There is further complexity in the three transport types of air freight: bellyhold, combi-planes and dedicated freighters. The economics of air freight are that costs have fallen as trade liberalisation has increased global aviation competition, profitability tends **continued >>**

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Working with the whole supply chain to explore opportunities for securing, upgrading and expanding pro-poor procurement in international horticultural supply chains from developing countries

Key messages

- Air freight enables rapid responses to unforeseen changes e.g. unpredicted warmer weather episodes in the UK mean higher consumption of fruit
- Air freight for fresh produce is estimated to account for less than 0.1 per cent of carbon emissions but supports over one million livelihoods in sub-Saharan Africa
- Air freight overcomes some costs of trade – time, distance, storage, depreciation, damage and administration
- Rapid transport expands land-use options in producer countries
- Supportive policies are required to ensure sustainable pro-poor impact of air freight-led development in producer countries
- Air freight changes horticulture industry structure and provides opportunities for private voluntary standards, which need careful implementation to be pro-poor

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>> **continued** to be low and pricing depends on the accounting model used by the airline.

Global air freight is dominated by couriered documents. Fresh food accounts for an estimated 14–18 per cent of global air freight. Moreover, the overwhelming majority of export horticulture is transported in the bellyhold of passenger planes, not in dedicated freighters.

The economics of air freight

The literature on trade and development is vast and offers a variety of viewpoints concerning the importance of trade liberalisation in promoting economic growth and reducing poverty. There is a widely held view that suggests that trade in agricultural products has a greater impact on poverty in developing countries than trade in non-agricultural commodities. The empirical evidence on trade suggests, by and large, that trade liberalisation and openness are good for growth and poverty reduction. While there are exceptions to this general rule, there is no systematic evidence in favour of the reverse proposition. On average, transport costs for goods shipped by air represent around 25–30 per cent of the good's retail value. Other trade costs are reduced – time, storage, depreciation, insurance and administration. Time represents a significant barrier to trade; reductions in transit time tend to increase trade volumes, induce new trade links and change the composition of trade, the location of industry and the extent of vertical specialisation and fragmentation in the supply chain.

Air freight pricing is predominantly based on weight and/or bulk – favouring light, small, valuable items. Air freight is not economical over short distances. The comparative advantage of air freight appears to be in small, lightweight or dense objects of high economic value over long distances. Also, air transportation has advantages for products that evolve rapidly or for which demand is difficult to predict, and hence require rapid responses. Examples include art, electronic goods, fashion clothing or new technologies such as mobile phones, medicines, legal and business documents. Currently, the highest expansion for air freight volumes is on routes out of east Asia to Europe and the USA.

Export horticulture and poverty

Air freight and sub-Saharan African agricultural production makes best use of comparative advantages from this impoverished region. Air freight economics are about low weight, high value, and African producers are very competitive in all high-value horticulture sectors. Furthermore, international trade in these commodities tends to benefit rural development through a direct flow of wealth to rural farmers and via multipliers to the rural economy, broadened land-use options and expanded structure of opportunities within the private sector. It is this view that has engendered a shift in the focus of development policy in the UK towards agriculture in general.

These are worrying times for both the export horticulture industry and poverty alleviation strategies in sub-Saharan Africa. First, information symbols identifying air-freighted fresh products are recent additions to UK supermarket shelves as retailers respond to increased consumer concerns about climate change. Second, rising supermarket private voluntary standards are reducing participation of small-scale growers owing to the high costs of compliance.

Does air freight catalyse local economic development in developing countries?

There is little doubt that access to air freight for developing countries can produce some important developmental benefits. Air freight has been critical to the export-led development of South and East Asia. While air freight is not a catalyst for development, it certainly appears to be an important enabling factor for development of industries supplying goods exported by plane, including horticultural products. Moreover, because of the falling cost of air freight, global trade in horticultural products has been increasing. This affects the nature of comparative advantage in many industries, shifting the location of suppliers and workers – often with value-adding processes being repositioned nearer to production, such as fruit packhouses relocated from Heathrow to Nairobi Airport.

Does air freight catalyse sustainable development?

There is unequivocal evidence that aviation causes climate change and its contribution is increasing. This paper does not seek to downplay climate change concerns, but rather to propose using a sustainable development screen to drive balanced decision-making that can make a lasting difference. For air freight of fresh produce from sub-Saharan Africa some commentators have proposed 'fair miles', positing that the contribution of this sector to the UK's carbon emissions is estimated not to exceed 0.1 per cent while an estimated million livelihoods are supported by this trade.

To maximise the potential of air freight's sustainable development credentials, an economist would suggest three linked components. First, all goods should be priced to reflect the social cost of carbon. Second, consumer awareness should be raised of the ethical/developmental content of certain purchases so that the price reflects these preferences. Last, in order to maximise benefits from trade in developing producer countries, supportive policies need to be put in place to ensure sustainable pro-poor impacts of air freight-led development. Such policies might include greater access to training for smaller farmers, to credit for the cash-constrained, and to market information for all.

In a carbon-constrained world, many options exist, however. For example, ensuring that allocation mechanisms favour developing countries with ecological space to spare; and ensuring that taxes on aviation are proportionate (e.g. those on short-haul flights) and will actually change behaviour to reduce emissions, and not merely to constrain specific sectors, particularly those that support the world's most vulnerable people. ■



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