Aid for Trade: an opportunity to increase fruit and vegetable supply

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Abstract Low fruit and vegetable consumption is an important contributor to the global burden of disease. In the wake of the United Nations High-level Meeting on Non-Communicable Diseases (NCDs), held in September 2011, a rise in the consumption of fruits and vegetables is foreseeable and this increased demand will have to be met through improved supply. The World Health Organization, the Food and Agriculture Organization and the World Bank have highlighted the potential for developing countries to benefit nutritionally and economically from the increased production and export of fruit and vegetables.

Aid for Trade, launched in 2005 as an initiative designed to link development aid and trade holistically, offers an opportunity for the health and trade sectors to work jointly to enhance health and development. The Aid for Trade work programme stresses the importance of policy coherence across sectors, yet the commonality of purpose driving the Aid for Trade initiative and NCD prevention efforts has not been explored.

In this paper food supply chain analysis was used to show health policy-makers that Aid for Trade can provide a mechanism for increasing the supply of fruits and vegetables in developing countries. Aid for Trade is an existing funding channel with clear accountability and reporting mechanisms, but its priorities are determined with little or no input from the health sector. The paper seeks to enable public health policy-makers, practitioners and advocates to improve coherence between trade and public health policies by highlighting Aid for Trade's potential role in this endeavour.

Abstracts in عربى, 中文, Français, Русский and Español at the end of each article.

Introduction

The United Nations General Assembly and the World Health Organization have encouraged intersectoral collaboration in the fight against non-communicable diseases (NCDs).¹ However, few constructive opportunities for practical intersectoral collaboration in the areas of food and trade have been documented; most research conducted so far has focused instead on the barriers to collaboration and on the health risks associated with changes in trade policy.²-⁴ This article describes how an initiative known as Aid for Trade, which is an established mechanism for development funding, can become an avenue for collaboration between the trade and health sectors.

Fruits and vegetables are important components of healthy diets. Their consumption in plentiful amounts reduces the risk of chronic, non-communicable diseases, particularly cardiovascular disease and cancer.⁵⁻⁸ At present, the health sector is primarily involved in efforts to increase the demand for fruits and vegetables through settings-based and promotion initiatives that have proved effective. 9-11 Investment in these demand-side interventions is likely to increase in the wake of the 2011 United Nations General Assembly High-level Meeting on Non-communicable Diseases. Consumption of fruits and vegetables is still far below the recommended level for effective health promotion and disease prevention in developed and developing countries. 11-13 Research has shown the need to increase the supply of fruits and vegetables to support demandgenerating interventions aimed at improving people's eating habits and reducing the risk of chronic disease. 14,15 A recent report on chronic disease prevention calls on health policymakers to "better leverage agriculture to produce desirable health and nutrition outcomes".16

Fruit and vegetable production, trade and consumption have risen markedly in developing countries over the past 30 years, particularly in Asia.¹⁷ However, much untapped production potential still exists in these countries, where improving the quantity, quality and distribution of fresh produce is fraught with difficulties.¹¹ Post-harvest losses keep many farmers from entering local and international markets, largely on account of a lack of infrastructure for product transport and processing.^{18–20}. In India, for example, an estimated 30–40% of the fruits and vegetables grown are lost after the harvest.¹⁸ Tariff and non-tariff barriers imposed by high-income countries, including sanitary and phytosanitary restrictions, also reduce the capacity for export.²⁰

Increasing the availability of fruits and vegetables will require upstream policy investment by the agriculture, development and trade sectors. The health sector plays a smaller role, yet it can strategically guide investment and decision-making in these sectors to improve policy coherence among them and support health goals.

Fruits and vegetables are a high-value food group; they are rich in nutrients and can be a valuable source of income for farmers.^{21,22} Increasing their supply will thus have flow-on population health benefits as well as economic advantages for producers and distributors. ^{21,23} Investment in this area presents an opportunity to improve policy coherence and collaboration between the health and economic sectors. Foreseeable benefits include the expanded production and availability of healthy foods, a more reliable supply of products for local and export markets and economic growth for the rural sector. In this context, Aid for Trade represents an opportunity for intersectoral collaboration to increase the availability of fruits and vegetables locally and globally. Aid for Trade is one of the few sources of aid for development that have continued to increase despite the global financial crisis. However, the health sector has little or no involvement in the direction of its funds, which are substantial, at the global or national level.

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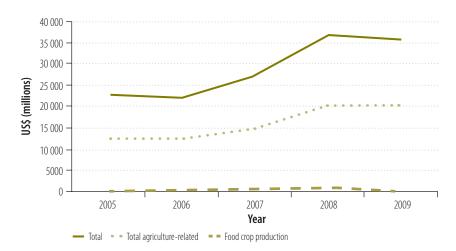
This paper describes an opportunity for health sector involvement in Aid for Trade decision-making processes, to promote public health and economic benefits. Such collaboration is supported by the recent report Aid for Trade at a glance 2011: showing results²⁴ and the current Aid for Trade action plan, which identify the need for collaboration with the health sector in Aid for Trade initiatives.²⁵ Despite growing investment in Aid for Trade activities related to agriculture, such activities have rarely been directed towards food crop production (Fig. 1).

For the health sector to engage effectively in this decision-making process, health policy-makers, practitioners and advocates must understand the existing policy frameworks and priorities and frame collaboration in terms of the benefit to both health and trade. In this paper we systematically show how Aid for Trade could serve to address critical barriers to the supply of fruit and vegetables. We then consider how health sector involvement could promote equity in agricultural development, as well as improve the supply of healthy foods. Since health sector professionals already know the benefits of improving the fruit and vegetable supply, we focus on the case they need to make to potential collaborators from the trade and development sectors.

Understanding Aid for Trade

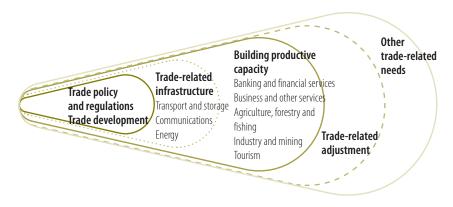
The aim of Aid for Trade is to help developing countries, especially the least developed countries, to build the supply-side capacity and trade-related infrastructure they need to benefit from opportunities to access markets and expand their trade. Although in recent years some developing countries have become internationally competitive producers, many others have failed to fully benefit from emerging trade and investment opportunities. The ability of developing countries to produce and compete in the modern agricultural economy is undermined by weak supply capacities, which can be as detrimental to export development as market access barriers.^{27,28} Many developing countries need resources to upgrade ports, telecommunications, customs facilities and institutions. Aid for Trade is designed to address these problems and to enable countries to build capacity through information, policies, institutions, infra-





US\$ United States dollars Data obtained from the Organisation for Economic Co-operation and Development.²⁶

Fig. 2. The Aid for Trade agenda



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structure and a vibrant private sector.24 Although import restrictions, including quantitative ones, continue to undermine export development, these are beyond the remit of Aid for Trade and, as a result, beyond the scope of this paper. They are being addressed in other fora, such as the Doha Development Round.

Aid for Trade works in the following domains: productive capacity, economic infrastructure; trade policy and regulations; and trade-related adjustment (Fig. 2). Its annual expenditure expanded from an average of 25.1 thousand million United States dollars (US\$) in 2002-2005 (baseline) to US\$ 40.1 thousand million in 2009. If non-concessional financing activities are included, the figure for Aid for Trade financing grows much larger, to about US\$ 90 thousand million in 2009. Economic infrastructure accounts for the largest expenditure in this total.

Aid for Trade priorities are determined through collaboration between donors and recipient countries, with input from multilateral institutions into national strategic plans and prioritysetting.²⁴ As a result, health practitioners and policy-makers at the national and international levels have the opportunity to influence Aid for Trade funding directions and priorities. Aid for Trade activities are usually managed in each country by the central planning and finance departments. In donor countries, development aid departments play a leading role.

Aid for Trade is an appropriate mechanism for investing in fruit and vegetable production because of its broad remit. It deals with internal and cross-border transport as well as storage, technology and infrastructure, in addition to agricultural development.

Because Aid for Trade can help improve the quality of agricultural produce and facilitate market access, it shares with the health sector the objective of increasing the supply of fruits and vegetables. Aid for Trade can be directed towards helping developing countries to become a part of the global and regional production networks and supply chains. In the case of fruit and vegetable production, Aid for Trade can help by investing in infrastructure and training to ensure quality and productivity throughout the supply chain.

A Swiss-funded cashew nut value chain project in Mozambique offers an example of Aid for Trade support. The aim was to help producers enhance the value of the base crop by implementing eco- and socio-friendly ways to process high-quality and specialty products,29 adopting quality standards and label certification, and enhancing market access through compliance with international norms and standards, marketing support, matchmaking and export/import promotion. The project was implemented by TechnoServe, a nongovernmental organization, with 668 000 Swiss francs (approximately US\$ 589 845 at the exchange rate applicable on 1 January 2008). The result was an enormous increase in the proportion of exported cashews that were processed, from zero in 2002 (out of 50 000 tons exported) to 36% in 2008 (of 66 000 tons exported). Between 2001 to 2008, the cashew nut processing industry in Mozambique enjoyed an aggregate positive impact of US\$ 11.5 million. The direct beneficiaries were close to 5000 factory workers, 50% of whom were women, and 5500 farming households, the primary cashew nut producers.30

Production and availability in low-income countries

Developing countries face policy-related and structural barriers to fruit and vegetable production and availability. In this section, we use consumption-oriented food supply chain analysis – a method developed to improve the nutritional and healthful aspects of the food supply – to assess barriers and opportunities to increase the supply of fruit and vegetables.³¹ The downstream aspects of retailing and promotion/labelling are not discussed because they are outside the scope of this paper.

Table 1. A consumption-oriented food supply chain analysis of barriers to fruit and vegetable production and availability

Step in food supply chain	Barriers to fruit and vegetable production and availability
Inputs into agricultural	Access to credit for farmers ^{20,22}
production	Access to technical assistance and infrastructure (e.g. irrigation, transport, agricultural extension support) ^{23,32}
Agricultural production	Ability to meet quality standards for both home and export markets (particularly meeting international standards under the Agreement on Sanitary and Phytosanitary Measures) ^{20,33,34}
	Ability to meet retail standards for traceability and food safety ²¹
Primary food storage and processing	Access to appropriate storage to maintain quality, including access to relevant technology (e.g. refrigeration, controlled atmosphere) ^{11,18,35}
	Ability to invest in small-scale food processing to add value and improve shelf-life (e.g. freezing, canning) ^{11,19}
Distribution, transport, and trade	Availability of appropriate transport technology and infrastructure ^{11,20}

The supply chain involves the following:

- inputs into agricultural production, i.e. natural resource inputs, such as land and water; human inputs, such as labour; and external inputs, such as seeds, fertilizers, pesticides and mechanized vehicles;
- agricultural production, i.e. the production of arable crops (grains, oilseeds), horticultural products (fruits, vegetables), fish (farmed, wild), meat and dairy products;
- primary food storage and processing, e.g. refrigeration and freezing (perishable foods), canning (e.g. vegetables), slaughtering (meat), milling (flour) and crushing (oilseeds);
- distribution, transport and trade, e.g. conveyance by truck from farm to a local market or from packing house to warehouse or by plane to another country.

The main barriers to fruit and vegetable supply are technical impediments to improving produce quality (which limits saleability); infrastructural deficits affecting production (e.g. poor irrigation); problems with postharvest storage and processing (e.g. inadequate refrigeration capacity); and transport difficulties (e.g. bad roads). All of these result in product volumes that are unreliable and unable to fulfil major buyers' orders and market demand (Table 1).

Many of these barriers, which are caused by a lack of agricultural capacity and infrastructure resulting from years of underinvestment, affect production for both domestic and export markets.³⁶ Most farmers in developing countries direct their produce to both traditional and modern supply chains, both of which would benefit from investment in infrastructure.^{28,32,37} Fruit and vegetable producers in developing countries are struggling to survive in a weak global economy and to develop their agricultural production and processing mechanisms in line with global trends in the demand for certain products, such as frozen foods.³⁸

Opportunities to expand availability

Current recommendations regarding agriculture for development favour the Aid for Trade model, which is based on increasing productivity by improving markets rather than subsidies. 36 The World development report 2008: agriculture for development highlights good local consultation strategies as essential and supports collaborative governance models, such as the one used for Aid for Trade. 36

The main avenues for Aid for Trade investment to increase fruit and vegetable supply are: (i) facilitating producer access to technical assistance to improve the quality of produce, (ii) improving infrastructure to enable the efficient transfer of produce from producers to markets, and (iii) helping governments to develop effective supportive policies and improve processes for agricultural production and export.

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Table 2 shows the scope for Aid for Trade investment in certain priority areas to overcome barriers to fruit and vegetable availability.

Overcoming barriers

Case stories prepared for the recent Aid for Trade review²⁴ serve to illustrate strategies and opportunities for overcoming barriers to improving the fruit and vegetable supply. Several of these stories report on projects financed by donors to help producers in meeting product quality standards. In one project, experts developed a tool kit to help farmers in Latin America comply with sanitary and phytosanitary measures and improve agricultural health and food safety services. In China, a similar project funded by Canada developed a programme to train small farmers, agricultural extension workers and government officials in food safety and World Trade Organization marketing rules.

The Standards and Trade Development Facility (STDF), which supports developing countries in building their capacity to implement sanitary and phytosanitary standards to gain or maintain access to markets, offers another example of Aid for Trade support. The STDF has provided support and funding for the development and implementation of projects that promote compliance with $international\ sanitary\ and\ phytosanitary$ requirements. A project in Rwanda on horticulture export standards addressed capacity-building needs in areas such as sensitization and awareness raising for targeted value chains, promotion of good practices and legal and regulatory reform.

Aid for Trade projects have also been used to facilitate trade and as avenues for reducing costs in the value chain. Because fruit and vegetables can perish during transport and storage, growers and distributors need access to the right technology to maintain product quality after the harvest. Border delays can increase costs significantly.39 Technical assistance to farmers and distributors, investment in transport infrastructure, improved access to technology and reduced border delays are all important for reducing costs and time involved in trade. For example, investment in technology to support cotton farmers in Benin, Burkina Faso, Chad and Mali reduced input costs and helped the farmers to diversify their crops, which increased their incomes.

Scope for Aid for Trade investment in certain priority areas to overcome barriers to fruit and vegetable availability

Barrier	Priority	Investment area
Poor quality produce	Compliance with sanitary and phytosanitary requirements to meet product quality standards in domestic and export markets	Provision of technical assistance, including distribution of seeds and fertilizer
Inadequate perishable product transport and storage facilities	Trade facilitation through improved processes and reduced time in transit; improvements to transport infrastructure	Road improvement; improvements to technology and provision of technical assistance
Lack of policy support for production and distribution	Services trade policies (e.g. reducing distribution costs); support to proactive industry-specific government policies	Improved border control capacity and policies

In Mozambique, investment in trade facilitation reduced the border clearing time for goods from 30 days to about 2 to 5 days.

Finally, Aid for Trade can be directed towards developing supportive policies, specifically pro-active industryspecific government policies, which are essential for effectively developing agricultural productive capacity. They involve investment in infrastructure (e.g. roads or irrigation) as well as measures to support farmers in growing high-value crops and gaining access to markets.²³ Aid for Trade has supported smallholder farmers in Pakistan, where over 1000 farming households were linked directly to dairy companies, which eliminated middlemen. Supportive policies could also include actions to remedy the lack of information among farmers regarding export markets.

Agricultural development, health and equity

Vertical integration associated with improved efficiency and safety of the food-chain has raised the concern that expanding export-oriented industry may be favouring large enterprises to the exclusion of smallholder farmers, who tend to be the poorest, and may be leading to a loss of social welfare.²⁸ Since this can undermine public health, strategies to increase fruit and vegetable supply must minimize any negative flow-on effects. Recent studies have indicated that when strategies are implemented in a consultative manner, smallholder farmers can actually benefit. 22,37,40-43

In the interests of improving equity and of ensuring that supply-side interventions have minimal negative flow-on

effects, the health sector must champion engagement and consultation with smallholder farmers and others who could be affected by Aid for Trade policy decisions.40 Research indicates that, with support for market infrastructure, "there is no reason why smallholders should be excluded in a world where organized retail is expanding rapidly". 28,37 The health sector also needs to actively engage with and support agricultural research on the effect of globalization on farmers' and labourers' incomes, as well as on food security and nutritional status.

Another concern is that a greater supply of fruits and vegetables could step up exportation at the expense of local fruit and vegetable consumption and local food security. Research on agricultural food systems in developing countries shows that farmers who participate in modern food supply chains also participate in traditional food systems.²⁸ As a result, trade-related investment in technologies and infrastructure that reduce post-harvest losses is also likely to improve food availability in local markets. In addition, agriculturebased economic growth has been shown to accrue to the poorest much more than growth in the non-agricultural economy.36 Hence, improvements to agricultural productivity and supply and reductions in post-harvest losses are likely to improve food security, even among poor farmers. However, it will be important for the health and agricultural sectors to implement additional policies when needed to promote and support food security.16

From a health perspective it is also important to consider the environmental implications of increasing fruit and vegetable supply and trade.44 Although the food trade generates carbon emissions through "food miles" (food transport), production by smallholders in developing countries using less sophisticated technologies is likely to generate a smaller carbon footprint than some locally produced foods.²⁸ Transport has a smaller impact on the environment than production-related activities. The impact of these varies by type of food; the production of meat and processed foods has a much higher environmental impact than that of fresh produce. 45,46

What the health sector needs to know

Aid for Trade is one of the few sources of aid for development that is stable and experiencing growth. At present the health sector has very little input into how Aid for Trade funds are allocated. This is an opportune moment to investigate opportunities for collaboration, since more than half of the reporting donors are planning to revise their Aid for Trade strategies in 2013.24 Health departments should make central planning and finance departments aware of the potential health and economic benefits, for both developed and developing countries, of directing Aid for Trade to fresh produce markets. From a practical and administrative perspective, it makes sense to use existing channels of expertise and funding. Aid for Trade provides a framework for strengthening food production capacity, infrastructure and accountability. To maximize intersectoral collaboration and policy coherence, health policy-makers and advocates need to be familiar with the language and priorities of the trade and development sectors.

Aid for Trade is not the only way to improve policy coherence between the trade and health sectors. However, it offers the potential to initiate a dialogue between these sectors to support future collaboration. Policy-makers and practitioners in these sectors pursue different aims and their priorities differ. These differences need to be taken into account when developing intersectoral collaboration. For example, the national policy space for public health intervention can be threatened by free trade agreements. 47 However, the importance of health to development is widely acknowledged. Dani Rodrik, a highly influential economist, has recently argued that democracies need to prioritize social commitments, including those pertaining to health, over the demands of the global economy.⁴⁸ In this vein, we consider Aid for Trade to increase fruit and vegetable production and supply a feasible strategy that will help reap both health and economic benefits and pave the way for dialogue leading to future collaboration.

Competing interests: None declared.

ملخص

تقديم المعونة للتجارة: فرصة لزيادة إمدادات الفواكه والخضر وات

بهدف الإيضاح لصناع السياسة الصحية أن تقديم المعونة للتجارة يمكن أن يوفر الية لزيادة إمدادات الفواكه والخضروات في البلدان النامية. ويمثل تقديم المعونة للتجارة قناة تمويل قائمة مع مساءلة وآليات تقارير واضحة، غير أن أولوياتها محددة بقلة الإسهامات الواردة من قطاع الصحة أو عدمها. وتسعى الورقة إلى تمكين صناع السياسة والمارسين والمناصرين في مجال الصحة العمومية من تحسين التناسق بين التجارة وسياسات الصحة العمومية من خلال التأكيد على الدور الممكن لتقديم المعونة للتجارة في هذا المسعى.

عديم المخولة معجرة. ورحمة ترود إعدادات أحدادات أهمية الالتزام بالسياسة عبر القطاعات، ومع ذلك لم يتم استكشاف العالمي للمرض. وفي أعقاب اجتماع الأمم المتحدة رفيع المستوى شيوع الغرض الدافع لمبادرة تقديم المعونة للتجارة وجهود توقي بشأن الأمراض غير السارية الذي عقد في أيلول/ سبتمبر 2011، في هذه الورقة، تم استخدام تحليل سلسلة توريد الأغذية أصبح من الممكن التنبؤ بارتفاع استهلاك الفواكه والخضروات، وسيتعين تلبية هذا الطلب المتزايد من خلال زيادة الإمدادات. وأكدت منظمة الصحة العالمية ومنظمة الأغذية والزراعة والبنك الدولي على إمكانية استفادة البلدان النامية من الناحية الغذائية والاقتصادية من الزيادة في إنتاج وتصدير الفواكه والخضر وات. يتيح تقديم المعونة للتجارة، التي تم إطلاقها في عام 2005 كمبادرة مصممة لربط المعونة الإنهائية بالتجارة على نحو شامل، فرصة لقطاعي الصحة والتجارة للعمل المشترك من أجَّل تعزيز الصحة والتنمية. ويؤكد برنامج عمل تقديم المعونة للتجارة على

摘要

贸易援助:增加水果和蔬菜供应的机会

水果和蔬菜消费量低是全球疾病负担的重要诱因。伴随 2011 年9 月召开的非传染性疾病 (NCD) 联合国高级别 会议, 水果和蔬菜的消费量有望提高, 这种需求的提高将 需要通过增加供应来满足。世界卫生组织、粮食及农业组 织和世界银行强调了发展中国家增加水果和蔬菜的生产和 出口而在营养和经济上产生的潜在利益。

启动于2005年的贸易援助计划旨在整体关联发展援助 和贸易,为卫生和贸易部门提供共同努力以增进卫生和发 展的机会。贸易援助工作计划强调各部门政策一致性的重 要性,然而还未探讨推动贸易援助计划和NCD预防工作的 目标共性。

本文使用食品供应链分析向卫生决策者说明贸易援助可 以为发展中国家提供增加水果和蔬菜供应的机制。贸易援 助是现有具有明确责任和报告机制的资金筹措渠道, 但在 确定其优先级方面没有或很少有来自卫生部门的输入。本 文力图通过强调贸易援助在此举措中的潜在作用, 让公共 卫生决策者、从业人员和支持者来强化贸易和公共卫生政 策之间的一致性。

Résumé

L'Aide pour le commerce: une occasion d'accroître l'offre en fruits et de légumes

La faible consommation de fruits et de légumes contribue de manière significative à la charge mondiale de morbidité. Au lendemain de la Réunion de haut niveau des Nations Unies sur les maladies non transmissibles (MNT), qui s'est tenue en septembre 2011, une hausse de la consommation de fruits et de légumes est à prévoir, et cette demande accrue devra être satisfaite par une offre accrue. L'Organisation mondiale de la Santé, l'Organisation des Nations Unies pour l'alimentation et l'agriculture et la Banque mondiale ont mis en évidence le potentiel existant, pour les pays en voie de développement, à bénéficier sur le plan nutritionnel et économique de l'augmentation de la production et de l'exportation de fruits et de légumes.

L'Aide pour le commerce, lancée en 2005 en tant qu'initiative visant à lier de manière holistique l'aide au développement et le commerce, permet aux secteurs de la santé et du commerce de travailler conjointement afin d'améliorer la santé et de renforcer le développement. Le programme de travail de l'Aide pour le commerce met l'accent sur l'importance de la cohérence des politiques intersectorielles, pourtant l'objectif commun motivant l'initiative de l'Aide pour le commerce et les efforts de prévention liés aux MNT n'a pas été étudié.

Dans ce document de travail, l'analyse de la chaîne de l'approvisionnement alimentaire été utilisée pour montrer aux décideurs des politiques de santé que l'Aide pour le commerce peut fournir un mécanisme d'augmentation de l'offre en fruits et légumes dans les pays en voie de développement. L'Aide pour le commerce est un canal de financement préexistant, aux responsabilités et aux mécanismes déclaratifs clairs. Toutefois ses priorités sont déterminées avec peu ou pas d'apport de la part du secteur de la santé. Ce document de travail vise à permettre aux décideurs de la santé publique, aux praticiens et aux défenseurs d'améliorer la cohérence entre commerce et politiques de santé publique, en mettant en avant le rôle potentiel de l'Aide pour le commerce dans cette entreprise.

Резюме

Помощь в интересах торговли: возможность увеличить поставки фруктов и овощей

Низкое потребление фруктов и овощей является важным глобальным фактором щаболеваемости. Согласно выводам совещания Генеральной Ассамблеи ООН высокого уровня по профилактике неинфекционных заболеваний (НИЗ), состоявшегося в сентябре 2011 г. прогнозируется рост потребления фруктов и овощей, и данный растущий спрос должен быть удовлетворен за счет роста предложения. Всемирная организация здравоохранения, Продовольственная и сельскохозяйственная организация и Всемирный банк подчеркнули потенциал для развивающихся стран, как с точки зрения питания, так и экономики, от увеличения производства и экспорта фруктов и овощей.

Инициатива «Помощь в интересах торговли» (Aid for Trade), запущенная в 2005 г., призвана целостно связать помощь в развитии и торговлю, обеспечивая возможность сотрудничества этих отраслей в целях укрепления здоровья и развития. Данная инициатива с самого начала подчеркивала важность

согласованности политики в различных сферах, однако не была подробно описана общность целей, лежащих в основе программы «Помощь в интересах торговли», и усилий по профилактике НИЗ.

В настоящей статье проводится анализ пищевой цепи с целью показать политикам в области здравоохранения, что инициатива «Помощь в интересах торговли» может обеспечить механизм увеличения поставок фруктов и овощей в развивающихся странах. Инициатива «Помощь в интересах торговли» представляет собой существующий канал финансирования с четкими механизмами ответственности и отчетности, но ее приоритеты недостаточно учитывают или почти не учитывают взаимодействие с областью здравоохранения. Целью статьи является разъяснение потенциала программы «Помощь в интересах торговли» с целью повысить согласованность усилий политиков, практиков и сторонников более тесного взаимодействия торговли и общественного здравоохранения.

Resumen

Ayuda para el Comercio: una oportunidad para incrementar el suministro de fruta y verdura

El consumo bajo de fruta y verdura contribuye de forma importante a la carga de morbilidad en el mundo. A raíz de la reunión de alto nivel de las Naciones Unidas sobre enfermedades no transmisibles, celebrada en septiembre de 2011, se prevé un aumento en el consumo de fruta y verdura, y se deberá hacer frente a esa demanda mayor incrementando el suministro. La Organización Mundial de la Salud, la Organización de las Naciones Unidas para la Agricultura y la Alimentación y el Banco Mundial han destacado la posibilidad que tienen los países en desarrollo de beneficiarse económica y nutricionalmente de este aumento de la producción y exportación de fruta y verdura.

Ayuda para el Comercio, que comenzó en el año 2005 como una iniciativa diseñada para unir por completo la ayuda al desarrollo y el comercio, ofrece a los sectores de la salud y del comercio la oportunidad de trabajar juntos para mejorar la salud y el desarrollo. El programa de trabajo de Ayuda para el Comercio enfatiza la importancia de la coherencia de las estrategias en todos los sectores, aunque la mayor parte del objetivo de la iniciativa Ayuda para el Comercio y los esfuerzos de prevención de enfermedades no transmisibles no se han examinado todavía.

En este artículo se empleó un análisis de la cadena de suministro de alimentos para mostrar a los legisladores que Ayuda para el Comercio puede proporcionar un instrumento para incrementar el suministro de fruta y verdura en los países en desarrollo. Ayuda para el Comercio es un canal de financiación existente con una responsabilidad clara y mecanismos de presentación de informes, pero sus prioridades están poco o nada condicionadas por aportaciones del sector sanitario. El presente documento pretende permitir a los legisladores de la sanidad pública, médicos y abogados mejorar la coherencia entre las estrategias comerciales y de salud pública destacando el posible papel de Ayuda para el Comercio en este empeño.

References

- United Nations General Assembly. Political declaration of the high-level meeting of the general assembly on the prevention and control of noncommunicable diseases. New York: UN; 2011. Available from: http://www. un.org/documents/instruments/docs_en.asp [accessed 5 November 2012].
- Blouin C, Chopra M, van der Hoeven R. Trade and health 3: trade and the social determinants of health. *Lancet* 2009;373:502–7. doi:10.1016/S0140-6736(08)61777-8 PMID:19167058
- Thow AM. Trade liberalisation and the nutrition transition: mapping the pathways for public health nutritionists. *Public Health Nutr* 2009;12:2150–8. doi:10.1017/S1368980009005680 PMID:19433005
- Thow AM, Hawkes C. The implications of trade liberalization for diet and health: a case study from Central America. Glob Health 2009;5.
- Hung H-C, Joshipura KJ, Jiang R, Hu FB, Hunter D, Smith-Warner SA et al. Fruit and vegetable intake and risk of major chronic disease. J Natl Cancer Inst 2004;96:1577–84. doi:10.1093/jnci/djh296 PMID:15523086
- John JH, Ziebland S, Yudkin P, Roe LS, Neil HAW. Effects of fruit and vegetable consumption on plasma antioxidant concentrations and blood pressure: a randomised controlled trial. *Lancet* 2002;359:1969–74. doi:10.1016/S0140-6736(02)98858-6 PMID:12076551
- Joshipura KJ, Hu FB, Manson JE, Stampfer MJ, Rimm EB, Speizer FE et al. The effect of fruit and vegetable intake on risk for coronary heart disease. *Ann Intern Med* 2001;134:1106–14. PMID:11412050
- Riboli E, Norat T. Epidemiologic evidence of the protective effect of fruit and vegetables on cancer risk. Am J Clin Nutr 2003;78:5595

 –695. PMID:12936950
- Ammerman AS, Lindquist CH, Lohr KN, Hersey J. The efficacy of behavioral interventions to modify dietary fat and fruit and vegetable intake: a review of the evidence. *Prev Med* 2002;35:25–41. doi:10.1006/pmed.2002.1028 PMID:12079438
- Knai C, Pomerleau J, Lock K, McKee M. Getting children to eat more fruit and vegetables: a systematic review. Prev Med 2006;42:85–95. doi:10.1016/j. ypmed.2005.11.012 PMID:16375956
- Fruit and vegetables for health: report of a joint FAO/WHO workshop, 1–3
 September 2004, Kobe, Japan. Geneva: World Health Organization & Food and Agriculture Organization; 2005. Available from: www.fao.org/ag/magazine/FAO-WHO-FV.pdf [accessed 5 November 2012].
- Huang S. Global trade of fruits and vegetables and the role of consumer demand. In: Hawkes C, Blouin C, Henson S, Drager N, Dubé L, editors. *Trade, food, diet and health: perspectives and policy options*. Oxford: Wiley-Blackwell; 2010.
- Kanungsukkasem U, Ng N, Minh HV, Razzaque A, Ashraf A, Juvekar S et al. Fruit and vegetable consumption in rural adults population in INDEPTH HDSS sites in Asia. Glob Health Action 2009;28 Sep:2. PMID:20027259
- Krebs-Smith SM, Reedy J, Bosire C. Healthfulness of the U.S. food supply: little improvement despite decades of dietary guidance. Am J Prev Med 2010;38:472–7. doi:10.1016/j.amepre.2010.01.016 PMID:20153133
- Drewnowski A. Obesity, diets, and social inequalities. Nutr Rev 2009;67:S36–9. doi:10.1111/j.1753-4887.2009.00157.x PMID:19453676
- 16. Nugent R. Bringing agriculture to the table: how agriculture and food can play a role in preventing chronic disease. Chicago: The Chicago Council on Global Affairs; 2011. Available from: http://www.thechicagocouncil.org/UserFiles/File/GlobalAgDevelopment/Report/Bringing_Agriculture_To_The_Table. pdf [accessed 5 November 2012].
- FAOSTAT [Internet]. Food supply, crops primary equivalent. Rome: Food and Agriculture Organization; 2012.
- Sikka BK, Ashutosh S, Agnihotri AK. Export competitiveness of Indian hortibusiness industry: a model for capacity building under precision farming. In: Proceedings of the 9th International Conference on Precision Agriculture, Denver, Colorado, USA, 20–23 July2008.
- Barry IN, Jaenicke H, Pichop GN, Virchow D. Production and marketing of African indigenous vegetables in the Arumeru district of Tanzania: assessing postharvest loss and processing potential. *Acta Hortic* 2009;806:481–8.
- Mitra SK, Chakraborty I, Pathak PK. Postharvest technology of tropical export produce: recent developments and challenges of a future free-trade world market. Acta Hortic 2011;906:115–23.
- Narrod CA, Roy D, Okello J, Avendaño B, Rich K, Thorat A. Public-private partnerships and collective action in high value fruit and vegetable supply chains. Food Policy 2009;34:8–15. doi:10.1016/j.foodpol.2008.10.005
- Roy D, Thorat A. Success in high value horticultural export markets for the small farmers: the case of mahagrapes in India. World Dev 2008;36:1874–90. doi:10.1016/j.worlddev.2007.09.009
- Selwyn B. Globalized horticulture: the formation and global integration of export grape production in north east Brazil. J Agrarian Change 2010;10:537–63. doi:10.1111/j.1471-0366.2009.00245.x
- Organisation for Economic Co-operation and Development & World Trade
 Organization. Aid for trade at a glance 2011: showing results. Paris: OECD
 Publishing; 2011.

- 25. Aid-for-trade work programme 2012-2013: deepening coherence. Geneva: World Trade Organization; 2011.
- Organisation for Economic Co-operation and Development [Internet].
 Development Co-operation Directorate (DCD–DAC). DAC data. Paris: OECD: 2012.
- Hoekman B. Strengthening the global trade architecture for development.
 Washington: The World Bank; 2002. Available from: http://www-wds.
 worldbank.org/servlet/WDSContentServer/WDSP/IB/2002/02/16/000094946_02020504024229/Rendered/PDF/multi0page.pdf [accessed 5 November 2012].
- 28. McCullough E, Pingali PB, Stamoulis KG. Small farms and the transformation of food systems: an overview. In: McCullough E, Pingali PB, eds. *The transformation of agri-food systems: globalization, supply chains and smallhold farmers*. London: EarthScan; 2008.
- United Nations Conference on Trade and Development. UNCTAD Biotrade Initiative: Biotrade principles and criteria. New York: UN; 2007. Available from: http://unctad.org/en/Docs/ditcted20074_en.pdf [accessed 5 November 2012].
- Swiss State Secretariat for Economic Affairs. Strengthening the competitiveness of export oriented agro value chains cashew nut value chain in Mozambique. Berne: SECO; 2011. Available from: http://www.oecd.org/ aidfortrade/47427815.pdf [accessed 5 November 2012].
- Hawkes C. Identifying innovative interventions to promote healthy eating using consumption-oriented food supply chain analysis. J Hunger Environ Nutr 2009;4:336–56. doi:10.1080/19320240903321243 PMID:23144674
- 32. McCullough E, Pingali PB. Overview of case studies assessing impacts of food systems transformation on smallhold farmers. In: McCullough E, Pingali PB, Stamoulis KG, editors. *The transformation of agri-food systems: globalization, supply chains and smallhold farmers*. London: EarthScan; 2008.
- Berdegué JA, Balsevich F, Flores L, Reardon T. Central American supermarkets' private standards of quality and safety in procurement of fresh fruits and vegetables. *Food Policy* 2005;30:254–69. doi:10.1016/j. foodpol.2005.05.003
- Martínez-Romero D, Bailén G, Serrano M, Guillén F, Valverde JM, Zapata P et al. Tools to maintain postharvest fruit and vegetable quality through the inhibition of ethylene action: a review. Crit Rev Food Sci Nutr 2007;47:543– 60. doi:10.1080/10408390600846390 PMID:17653980
- 35. Ahmad I, Chwee CP. An overview of the world production and marketing of tropical and subtropical fruits. *Acta Hortic* 2008;787:47–58.
- World development report 2008: agriculture for development. Washington: The World Bank; 2009.
- Huang J, Wu Y, Rozelle S. Marketing China's fruit: Are small, poor farmers being excluded from the supply chain? In: McCullough E, Pingali PB, Stamoulis KG, editors. The transformation of agri-food systems: globalization, supply chains and smallhold farmers. London: EarthScan; 2008.
- 38. Linthicum L. Fresh fruit and vegetable sales hit by recession. *Euromonitor Intl* 14 September 2009.
- 39. Djankov S, Freund C, Pham CS. Trading on time. *Rev Econ Stat* 2010;92:166–73. doi:10.1162/rest.2009.11498
- Birthal PS, Joshi PK, Roy D, Thorat A. Diversification in Indian agriculture towards high-value crops: the role of smallholders. Washington: International Food Policy Research Institute; 2007.
- Mithöfer D, Nang'ole E, Asfaw S. Smallholder access to the export market: the case of vegetables in Kenya. *Outlook Agric* 2008;37:203–11. doi:10.5367/000000008785915476
- Miyata S, Minot N, Hu D. Impact of contract farming on income: linking small farmers, packers, and supermarkets in China. World Dev 2009;37:1781–90. doi:10.1016/j.worlddev.2008.08.025
- 43. Kersting S, Wollni M. New institutional arrangements and standard adoption: evidence from small-scale fruit and vegetable farmers in Thailand. *Food Policy* 2012;37:452–62. doi:10.1016/j.foodpol.2012.04.005
- Pretty JN, Ball AS, Lang T, Morison JIL. Farm costs and food miles: an assessment of the full cost of the UK weekly food basket. *Food Policy* 2005;30:1–19. doi:10.1016/j.foodpol.2005.02.001
- Blanke MM, Burdick B. Food (miles) for thought energy balance for locallygrown versus imported apple fruit. *Environ Sci Pollut Res Int* 2005;12:125–7. doi:10.1065/espr2005.05.252 PMID:15986993
- Weber CL, Matthews HS. Food-miles and the relative climate impacts of food choices in the United States. *Environ Sci Technol* 2008;42:3508–13. doi:10.1021/es702969f PMID:18546681
- 47. Gleeson D, Legge D. Strengthening public health engagement in trade policy: PHAA's policy on trade agreements and health. *Aust N Z J Public Health* 2012;36:7–11. doi:10.1111/j.1753-6405.2012.00823.x PMID:22313698
- 48. Rodrik D. *The globalization paradox: democracy and the future of the world economy.* New York: WW Norton & Company; 2011.

Bull World Health Organ 2013;91:57–63 doi:10.2471/BLT.12.106955 63