

# TRADE POLICY SUPPORTIVE OF FOOD SECURITY AND NUTRITION

## Lesson 2: Design and Implementation of Trade Policy Measures

*Text-only version*



The interactive version of this lesson is available free of charge at <https://elearning.fao.org>

Some rights reserved. This work is available under a CC BY-NC-SA 3.0 IGO  
(<https://creativecommons.org/licenses/by-nc-sa/3.0/igo/>) licence.

© FAO, 2023

## In this lesson

In this lesson .....	1
Learning objectives .....	2
Introduction .....	2
Considerations for Designing and Implementing Trade Policy Measures .....	2
A. Distributional Impacts .....	2
B. Stability of Policy Interventions .....	3
C. Adequacy of Risk Management Mechanisms .....	4
Historical Patterns of Trade Policy Interventions .....	6
A. High-income countries: historical patterns .....	7
B. Low and middle-income countries: historical patterns .....	8
Lesson Summary .....	11
Course 2 reflections .....	11

## Learning objectives

In this lesson you will:

- understand how agricultural trade policy measures can be designed and implemented;
- identify the key considerations for designing and implementing trade policy measures from a food security perspective; and
- evaluate historical patterns of trade policy interventions in agriculture in high-income and low and middle-income countries.

## Introduction

In this lesson we will discuss how trade policy measures can be designed and implemented, in order to ensure that they are effective in achieving the intended policy objectives.

## Considerations for Designing and Implementing Trade Policy Measures

The impact of policies depends not only the type of policy that is put in place, but also on the way in which the policy is designed, enforced and implemented in practice. This section will discuss the following key considerations for designing and implementing trade policy measures:

- A. Distributional Impacts
- B. Stability in Policy Interventions
- C. Adequacy of Risk Management Mechanisms

### A. Distributional Impacts

**The impact of trade policies can vary for different sub-sectors and different actors in an economy.**

Trade policy changes imply that some sectors or segments of population gain, while others may lose, with differential impacts on their food security. In the design and implementation of trade policies, it is **important to understand and address such distributional effects**, in order to achieve their intended objectives.



**Impacts of trade policies for different sub-sectors.**



Greater openness to trade can have different impacts on prices, production, employment and incomes in export vs. import-oriented sub-sectors.

You can review the impacts of trade policies for different sub-sectors in **Lesson 2 of the course “Introduction to trade, food security and nutrition.”**

**Impacts of trade policies for different actors.** Depending on the type of policy measure used, the impact on consumers, producers and government reserves can vary.

You can review the impacts of trade policies for different actors in **Lesson “Trade Policy Measures and Agricultural Development”**.

A policy package that involves trade reforms must suit the overall economic and social development needs and priorities of the country. It is therefore important to understand the distributional impacts on different sectors, sub-sectors, and actors to the extent possible and design trade policies as a package of different policy measures, such that the negative effects of any particular measure on certain sub-sectors or actors are offset by other policy measures.

## **B. Stability of Policy Interventions**

In the design of trade strategies for greater openness, **it is important to ensure stability and predictability in any policy** intervention. A gradual implementation of policy reforms may be advisable, and the policy objectives and likely effects, need to be communicated clearly. Instead, if governments intervene in markets in an ad-hoc way:



Unpredictability of policies will be factored into producers' expectations – i.e. producers will expect uncertainty, which would reduce their incentive to invest in productivity-improving technologies and practices.



The country is likely to backslide to the previous status quo or – worse – to higher levels of government intervention in markets, as they manage the uncertainties and risks introduced by the ad-hoc policy.

Let's examine these implications through an example. When faced with high food prices in 2007-2008, governments in many Eastern and Southern African countries responded by introducing **ad hoc policy interventions**. These **policy interventions** included restriction of food staple exports at short notice in response to concerns about the food balance situation. The **overarching impact** was that the ad-hoc nature of this policy intervention increased price-related risks for producers as well as post-production value chain actors.

**What were specific impacts?**

- on the producers**
  - **Lower production incentives** due to price risks.
  - **Lower investment in productivity-enhancing technologies and practices.**
- on exporters and other value-chain actors**
  - **Financial and reputational losses**, if private sector exporters have already entered into contracts to supply a commodity to buyers in an importing country.
  - **Lower investment in market-related infrastructure** such as storage facilities that are required to expand trade volumes.
- on importers**
  - **Negative food security impacts for importers**, which rely on imports to satisfy domestic food demand.
  - **Lower reliability on regional markets for food.**

*After all these considerations, what was the overall impact?*

**Lower intra-regional trade** due to uncertain business environment that leads to lower private-sector engagement and investment in market development.

The example you have just read highlights how **these interventions have contributed to an uncertain business environment, and ultimately, lower intra-regional trade**. Therefore, when designing and implementing trade policies the following must also be considered:

- It is often not the policy measures themselves that contribute to the uncertainty, but the inconsistent and less than transparent way in which they are implemented.
- Designing and implementing trade policies requires a long-term view for the agriculture sector, which prioritizes trust-building between the government and private sector.
- This would involve predictable and consistent policies from the government, and commitment to long-term trade development from the private sector.

### C. Adequacy of Risk Management Mechanisms

In order to design trade policy measures that are appropriate for the stage of development of a country's agriculture sector or sub-sector, a key consideration is to **evaluate the risks facing producers**.

**The adequacy of risk management mechanisms is likely to change by stage of agricultural development.** Trade policy instruments must therefore be designed with consideration to the stage of agricultural development in a country, with particular attention to the adequacy of risk management mechanisms.

<b>Underdeveloped agricultural sector</b>	<p><b>Level of risk</b> - Producers may be significantly and continuously exposed to lower-cost imports and unable to progress to the next level of commercialization.</p> <p><b>Role of trade policy</b> - In this setting, trade policy may be designed to provide stability to markets, so that producers have incentives to invest in production for market.</p>
<b>More developed economies</b>	<p><b>Level of risk</b> - The agriculture sector may be in a position to compete but a lack of risk management instruments may leave producers vulnerable to shocks, both weather and market induced.</p> <p><b>Role of trade policy</b> - In this setting, trade policies may be designed to help producers cope with weather and market-induced shocks.</p>
<b>Manure economies</b>	<p><b>Level of risk</b> - It is expected that market-based risk management mechanisms will be in place to manage exposure to international markets or domestic conditions.</p> <p><b>Role of trade policy</b> - In this setting, the role of government supported risk mitigation mechanisms would be minimal, and potentially inappropriate.</p>

### Situation

Country X is a low and middle -income country with largely subsistence production and high levels of food insecurity. The government is considering the introduction of a policy package to support both producers and poor consumers. This package includes a producer price support programme (in order to raise the price paid to farmers), and ad hoc export restrictions depending on the market situation (in order to ensure sufficient availability of food in the country). These are the factors that the government should consider in the design and implementation of this policy package:

- ✓ Ad hoc export restrictions and producer price support programme would have opposing effects on production incentives.
- ✓ Social protection measures should be provided to complement government interventions in food markets to protect the vulnerable populations.

- ✓ Measures to improve the access of producers to risk management mechanisms should be provided.

### *The key points to remember*

- ① Trade policy design should be informed by the distributional impacts of reforms, such that negative impacts are mitigated through adequate complimentary measures.
- ② Trade policy implementation should not introduce sudden, ad-hoc changes. Instead, it should promote a stable and predictable business environment.
- ③ Trade policy design should be informed by the level of risk faced by producers, and their access to risk management mechanisms, at different stages of development.
- ④ Adequate capacities should be enforced and implemented, so that the target groups are reached.
- ⑤ Monitoring and evaluating progresses on the desired outcomes of policy interventions (such as levels of agricultural productivity, market development, private investment, etc.) is important to ensure that these targets are achieved.

## Historical Patterns of Trade Policy Interventions

It is useful to contrast the theory of trade policy with actual trends in the level and nature of agricultural policies around the world. In this section, we will present some facts on this topic by distinguishing between high-income and low and middle-income countries. We will examine government support to the agriculture sector in terms of:

- High-income Countries: Historical Patterns
- Low and middle-income Countries: Historical Patterns

Governments support food and agriculture in different forms and using different types of instruments.

Measuring the level of support is fundamental to determine if changes in policy are needed to encourage production or ensure food security. A common indicator to measure this support is the Nominal Rate of Assistance (NRA)<sup>1</sup>. This indicator captures:

- Trade and market interventions that provide price support, including border measures (for example, tariffs)
- Fiscal subsidies (for example, input and output subsidies)

#### Related courses on the FAO elearning Academy:

- [Monitoring price incentives for food and agriculture: the MAFAP method](#)
- [Monitoring public expenditure on food and agriculture: the MAFAP method](#)

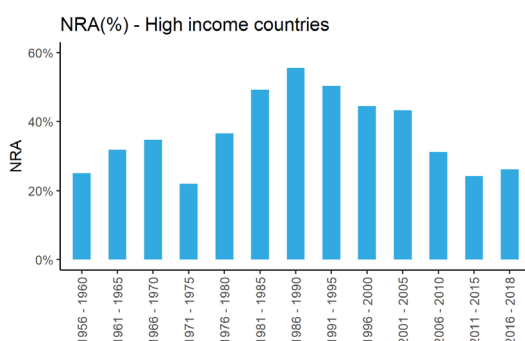


Methodology for calculating NRA - [www.oecd.org/tad/agricultural-policies/41086933.pdf](http://www.oecd.org/tad/agricultural-policies/41086933.pdf)

Related Indicators - <http://www.oecd.org/tad/agricultural-policies/41121738.pdf>

#### A. High-income countries: historical patterns

The figure shows that, on aggregate, government support to farmers in **high income countries** - as measured by the NRA indicator - has fallen sharply from its peak in the late-1980s. In the next pages we will examine the highlights of this graph.



Source: Adapted from FAO, UNDP and UNEP.

2021. *A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems*. Rome, FAO.

<https://doi.org/10.4060/cb6562en>

From late-1950s to the late-1980s when food prices were at record lows, there was an upward trend in the NRA indicator. This likely resulted from the prevalent use of policy measures such as restricting imports and subsidizing production and exports.

<sup>1</sup> The NRA measures transfers exclusively made to farmers arising from price support generated by trade and market policies and fiscal subsidies.



Since the early-1990s, the NRA indicator has declined considerably. This resulted from the reforms of agricultural policies in the major producing economies such as the US and EU and, new disciplines on agricultural support as part of the World Trade Organization (WTO) Agreement on Agriculture.

**Lesson “Governance of Trade, food security and nutrition”** discusses the WTO Agreement in Agriculture.

## **B. Low and middle-income countries: historical patterns**

The policies implemented in more recent times in low and middle-income countries are of a type that may influence the level of production. Growing government support in the larger emerging countries has been of particular concern, as the sheer size of their economies means that their agriculture sector programmes are more likely to affect other countries. In low and middle-income countries, a **market development gap**<sup>2</sup> often exists, which can cancel out positive producer incentives created by support policies, reducing the efficacy of a policy intervention.

These can be measured as the average cost to producers of market-development related inefficiencies in domestic value chains. It highlights the potential gains, or cost saving, that could be achieved if the necessary investments were made and adequate measures taken to reduce costs

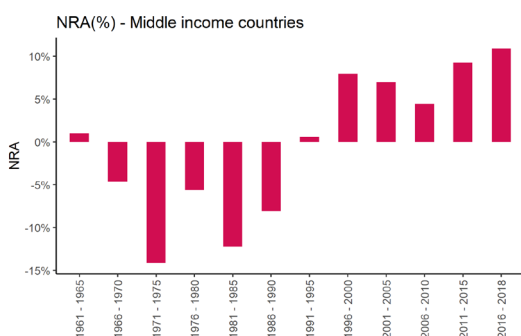
*Source: Barreiro-Hurle, J. and Witwer, M. (2013). **Monitoring and Analysing Food and Agricultural Policies (MAFAP) Methodological Implementation Guide: Volume 1 – Analysis of Price Incentives and Disincentives**. FAO, Rome, Italy.*

[www.fao.org/publications/card/en/c/3d23c704-6a2c-41cd-89b2-dfa3a0415084/](http://www.fao.org/publications/card/en/c/3d23c704-6a2c-41cd-89b2-dfa3a0415084/)

In **middle income countries**, on aggregate, the NRA was negative until the late-1990s, turning positive thereafter. This graph shows that on aggregate, the NRA in middle income countries has been rising, from a position of net taxation of agriculture to positive support since mid-1990s.

---

<sup>2</sup> The market development gap refers to inefficiencies in domestic food systems that act as additional disincentives at the producer level. It stems from a range of factors including exchange rate misalignments, high marketing costs because of limited investment in infrastructure, and illicit taxes.

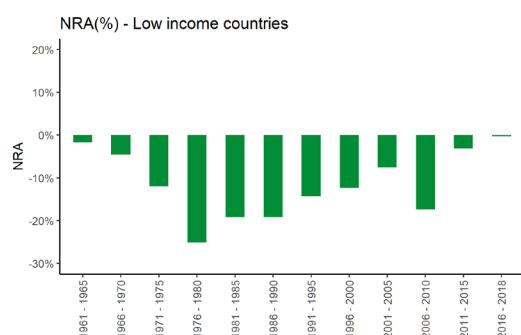


Source: Adapted from FAO, UNDP and UNEP. 2021.

*A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems.*

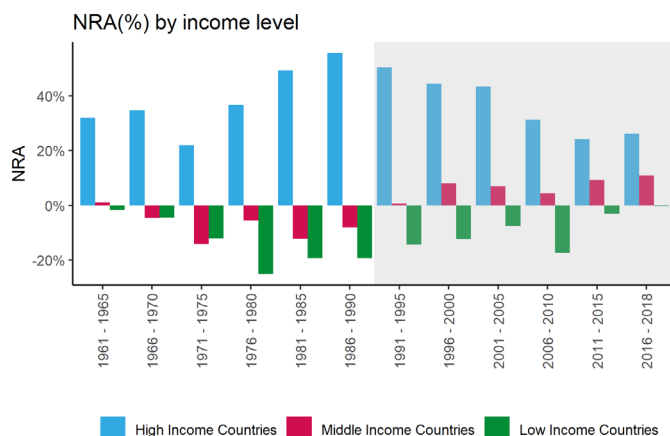
Rome, FAO. <https://doi.org/10.4060/cb6562en>

In **low-income countries**, on aggregate, the NRA has remained negative throughout the whole period. However, the graph shows that the position of net taxation of agriculture has been reduced in recent years.



Source: Adapted from FAO, UNDP and UNEP. 2021. *A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems.* Rome, FAO. <https://doi.org/10.4060/cb6562en>

In conclusion, the graph shows that, despite the upward trend, the average NRA for low and middle income countries in the most recent period was still below the average NRA for high income countries. It is important to remember that these trends are aggregates, and there can be significant differences in net support across countries and commodities.



Source: Adapted from FAO, UNDP and UNEP.

2021. *A multi-billion-dollar opportunity – Repurposing agricultural support to transform food systems*. Rome, FAO. <https://doi.org/10.4060/cb6562en>

### The key points to remember

- ① In high-income countries, the NRA has been declining since the early-1990s, but remains positive. The decline in the NRA reflect changes in the nature of support, rather than an absolute reduction in support to agriculture.
- ② In middle-income countries, the NRA has been rising, but has remained negative until the mid-1990s. On the contrary, and albeit the position of net taxation of agriculture has been reduced in recent years, in low income countries the NRA has remained negative.
- ③ The aggregate NRA estimates conceal differences by countries and commodities. These differences must be taken into account when drawing policy implications.

## Lesson Summary

### In this lesson you have learnt that:

- Distributional effects need to be considered in order to achieve effective design and implementation of trade policies;
- In the design of trade strategies it is important to ensure stability and predictability in any policy intervention;
- Trade policy instruments must be designed with consideration to the stage of agricultural development in a country and with particular attention to the adequacy of risk management mechanisms; and
- The NRA indicator can be used to examine aggregate trends in government support to farmers producer support in low, middle and high-income countries.
- 

## Course 2 reflections

The questions provided below present a summary of Course 2.

### ➤ What are some examples of trade policy measure, and how they affect different actors?

Trade policy measures can be either border measures or domestic policies that affect trade. Examples of border measures include import and export tariffs and restrictions. Examples of domestic support measures include input and output subsidies. The impacts of trade policy measures on producers, consumers and government revenues depends on the specifics of the policy instrument and how it is implemented.

### ➤ What are the key considerations for defining long-term policy objectives and choosing appropriate trade policy measures?

The level of structural transformation in an economy, and the stage of agricultural development are key considerations in determining policy objectives for agricultural trade policy. They consequently determine the appropriate package of domestic support and border measures that can meet those objectives. Among other things, achieving long-term food security requires policies that promote:

- social protection,
- sustained agricultural productivity increases and,
- more efficient and inclusive markets.

The question is when and how, rather than whether, countries should open their agricultural sectors to greater competition.

➤ **What are the key considerations for designing and implementing trade policy measures in agriculture?**

The key considerations for designing and implementing trade policy measures include:

- the distributional impacts of trade policy measures on different sectors in an economy, or on consumers, producers and government revenues within a sector;
- the stability and predictability of trade policy interventions; and
- the level of risk faced by agricultural producers and their access to adequate risk management mechanisms.

➤ **What were the impact of trade policy measures applied to mitigate the effect of high food prices during 2006-2008?**

Short-term food security concerns led many policy makers to implement ad-hoc measures like export bans and import tariff reductions. However, while such policies may have helped achieve short-run national objectives of increasing food availability and lowering food prices, in the medium-to-long term, there were some negative consequences for national and global food markets. These included tightening of the balance between demand and supply for food which put upward pressure on prices; and lower production incentives due to an uncertain policy environment.

➤ **How do trade policy objectives change by stage of agricultural development?**

In countries or sectors where agricultural production systems are rudimentary and critical infrastructure is absent, policy objectives may focus on establishing the basic conditions for productivity to rise. In cases where production is not sufficient to supply markets and risk management instruments are inadequate, objectives of productivity improvement may be more important. In yet more mature economies, where agriculture is characterized by large-scale commercial production and there are low transaction costs, the objectives might focus on promoting private-sector led growth.

➤ **What are the historical patterns in using trade policy measures globally?**

The evolution of the Nominal Rate of Assistance (NRA) indicator shows that, on aggregate, the level of assistance in high-income countries is positive, but has been declining. Whereas in middle-income countries, the NRA has largely been negative, but it has become positive in more recent periods. In low-income countries the NRA has remained negative. It must be noted that the aggregate measures may mask significant differences in policy support by country and by commodity.