

**COSTS, BENEFITS AND CHALLENGES OF ISPM 15 IMPLEMENTATION:**

**A QUALITATIVE AND ECONOMIC ASSESSMENT IN BOTSWANA, CAMEROON,  
KENYA AND MOZAMBIQUE**

This policy brief draws on the results of the Standards and Trade Development Facility (STDF) supported project ‘Implementation of the International Standard on Phytosanitary Measures ISPM 15 (Regulation of wood packaging material in international trade): an empirical analysis of how the regulation affects the economy of a group of countries in Africa’.<sup>1</sup>



ISPM 15 specifies necessary phytosanitary measures to reduce the risk of pests associated with the cross-border movement of wood packaging material (WPMs). The international standard was approved by the International Plant Protection Convention (IPPC) in 2002 and has since been modified in 2006, 2009 and 2013.

The international standard identifies three types of treatment for implementing countries.

The *heat treatment* (HT) calls for a minimum temperature of 56°C to be reached and held for 30 continuous minutes. The *dielectric heating* (DE) process requires a minimum temperature of 60°C for the same duration.

The use of *methyl bromide* (MB) requires the WPMs to be exposed to the pesticide for 24 hours.

The volume of international trade has been increasing as a result of globalization; the value of trade in 2015 was nearly twice as high as in 2005. Trade among developing economies has increased too, account for 42% share of the global trade in 2015.

The increasing use of WPMs-crates, boxes, packing cases, dunnage, pallets, cable drums and spools/reels- for trade purposes is considered to be the major cause for the spread of quarantine pests across countries.

Global recognition of this threat resulted in the establishment of ISPM 15.



The STDF funded project, implemented by the International Institute of Social Studies (ISS), looks at the ISPM 15 implementation in Botswana, Cameroon, Mozambique and Kenya. It consists of three distinct but interlinked components of mixed methodologies; a qualitative, a microeconomic and a macroeconomic analysis.

<sup>1</sup> [www.standardsfacility.org/PG-460](http://www.standardsfacility.org/PG-460)

**Case story: Botswana**

The country has put in place a plant protection act, but the lack of National Plant Protection Organization (NPPO) resources had inhibited the enforcement of the legislation.

*Evidence from qualitative interviews*

The NPPO has not organized any formal training for the only existing WPM treating facility. The WPM treating facility is not regularly audited by the NPPO. There are several WPM repairers which do not treat repaired WPMs. The phytosanitary service at the border does not always enforce the inspections of non-fruit and vegetables imported goods.

*Evidence from macroeconomic analysis*

Following the implementation of ISPM 15, the vast majority of sectors experienced an increase in export volumes. Approximately half of the sectors experienced an increase in import volumes. Overall, exports increased by 726 million euro, while imports increased by 240 million euro.

*Evidence from microeconomic analysis*

The application process for obtaining the license to operate as a WPM treating facility takes about one month. The WPM treating facility has not expanded its employment in recent years. About 300 WPMs are treated each month and sold mainly to one exporting company. It costs about 1,500 euro per year to run the facility and the facility runs a surplus; the treating activity – as it is now- is economically viable.



**Case story: Cameroon**

In 2006, the Cameroon Ministry of Agriculture and Rural Development signed a law which specifies all procedures required for implementing the standard. The NPPO is the implementing agency. A phytosanitary inspection guideline has been recently released and it will serve as an inspection manual.



*Evidence from qualitative interviews*

The law allows the WPM treating facilities to use phosphine (PH3) –not authorized by the ISPM15- to treat WPM.

WPM treating facilities using MB do not own their own stamp; this poses a problem in term of traceability of the treatment company. The phytosanitary service at the border does not always enforce the inspections of imported goods.

*Evidence from macroeconomic analysis*

The majority of sectors experienced an increase in export volumes as well as an increase in import volumes. Overall, exports increased by 130 million euro, while imports increased by 1,291 million euro.

*Evidence from microeconomic analysis*

12 out of the 24 existing WPM treating facilities did not allow the NPPO (auditor) to interview them. The size of interviewed WPM treating facilities varies, with the average number of employees being seven. There has been a slight increase in the employment compared to previous years. The interviewed facilities treat about 700 WPM every month. The yearly cost for running the facility amounts to 5,500 euro; the facilities run a surplus.

**Case story: Kenya**

ISPM 15 has been implemented since 2006. The implementation process –overseen by Kenya Plant Health Inspectorate Service (KEPHIS) and is regulated by the Plant Protection act and by the KEPHIS Act No 54/2012. A new draft regulation is under scrutiny, with the purpose to further strengthen the enforcement of the standard.



*Evidence from qualitative interviews*

Former WPM treating facilities still own the ISPM 15 stamp (which they may still use). One WPM treatment facility uses Chromated Copper Arsenate (CCA) to treat timber, which is not an authorized method.

Private and public stakeholders still have doubts whether treated WPM are considered treated for life or need to be re-treated after 3 months.

The audit process should be more thorough and an implementation guideline for private stakeholders is necessary.

The phytosanitary service at the points of entry rarely enforces the inspections of non-fruit and vegetables imported goods.

*Evidence from macroeconomic analysis*

Approximately half of the sectors experienced an increase in export volumes. Similarly, approximately half of the sectors experienced an increase in import volumes. Overall, exports increased by 481 million euro, while imports increased by 1071 million euro.

**Case story: Mozambique**

The NPPO is the organization in charge of implementing the ISPM 15 and in ensuring compliance in Mozambique. The NPPO receives help –in terms of knowledge and resources- by the Plant Protection department, Ministry of Agriculture.

*Evidence from qualitative interviews*

Several private and public stakeholders are not aware of the ISPM 15.

Despite the substantial export volumes in Mozambique, there are only four WPM treating facilities. All of them are located far from Maputo and, hence, are underutilized.

There are several WPM repairers in Maputo; these repaired WPM may have not been treated again.

The inspections of non-fruit and vegetables imported goods are not always enforced.

*Evidence from macroeconomic analysis*

The majority of sectors experienced an increase in export volumes. Similarly, the vast majority of the sectors experienced an increase in import volumes. Overall, exports decreased by 41 million euro, while imports increased by 144 million euro.

*Evidence from microeconomic analysis*

It takes 7 months for WPM treating facilities to obtain the license from the NPPO and for updating/purchasing the necessary equipment. Each facility employs about 20 workers and employment has increased in recent years. Not all the facilities have received training from the NPPO.

The overall yearly cost for the facilities of 3,600 euro is not completely covered by the sale of WPMs. Those facilities, on average, run a loss.

The 18 WPM treating facilities employ an average of 32 workers; the number of workers being hired in the sector has increased in the last few years. 1,000 WPMs are treated every month, which is well-below the maximum capacity.

The high operational costs -8,000 euros- are due to the fact that the facilities manufacture, repair and treat WPMs. The WPM treating facilities manage to operate with a surplus.



**Policy recommendations**

Governments should develop adequate national legislation to support the correct implementation of ISPM 15.

Each NPPO should prepare, distribute and advertise policy documents on what is needed for the implementation of and compliance with the standard.

The NPPOs should prepare concrete guidelines on the content of the audits. This will help verify in a consistent manner whether WPM treatment facilities are operating in compliance with the standard. A cost-recovery mechanism for the audits should be developed.

A list of all authorized WPM treatment facilities in the country should be made publicly available.

The NPPOs should investigate the compliance of informal WPM repair facilities.

The NPPOs should prepare import inspection guidelines that apply to consignments of fruit and vegetables as well as other goods. All the above recommendations should be discussed at a regional level with the oversight of the Interafrican Phytosanitary Council (IAPSC).

**Country challenges and ISPM 15 solutions**

The NPPOs audit the WPM treating facilities, although regulations on the frequency, timing and content of the audits are missing.

The NPPOs authorize the WPM treating facilities to operate. It is not clear what happens to facilities that do not pass the audit (or to the mark when they stop operating).

It is very common in all four countries to see WPM repairers on the side of the streets of main industrial areas. These facilities repair broken WPMs without re-treating them. The destination of these repaired WPMs is unclear (that is, whether they are used for exporting purposes or only for domestic use).

There is a lack of coordination between Customs, which is in charge of inspecting all imported goods, and the Phytosanitary service, which inspects all phytosanitary-related commodities. The phytosanitary service often fails in inspecting WPMs carrying non-fruit and vegetables goods.

There are three authorized treatments- HT, MB and DH. The three treatments are equivalent in terms of efficacy. Few WPM treating facilities use other (unauthorized) treatments –PH3 and CCA.

The mark applied by the WPM treating facilities is not always readable. The readability of the mark may improve as a consequence of the introduction of electric markers, which will substitute manual markers.

**Find out more on ISPM 15 and the STDF**

For more information about the ISPM 15, please refer to the IPPC dedicated web page:

<https://www.ippc.int/en/publications/regulation-wood-packaging-material-international-trade-0/> .

For more information about the STDF and the project, please refer to:

[www.standardsfacility.org/PG-460](http://www.standardsfacility.org/PG-460) .



*Policy brief prepared by Elissaios Papyrakis (International Institute of Social Studies, The Hague, NL) and Luca Tasciotti (School of Oriental and African Studies, London, UK) [lt20@soas.ac.uk](mailto:lt20@soas.ac.uk).*