



PRELIMINARY FINDINGS for the

**STUDY ON THE FEASIBILITY OF ESTABLISHING A REGIONAL AGREEMENT FOR THE
MUTUAL RECOGNITION OF AGRICULTURAL MACHINERY TESTING TO ENHANCE TRADE OF SAFE
AND EFFICIENT MACHINERY**

Sandro Liberatori, ANTAM Technical Reference Unit

Said Jafarli, ESCAP-CSAM

1/1 THE FUTURE TRENDS OF AGRICULTURE

As noted by the United Nations Secretary-General António Guterres during World Food Day celebrations in October 2022, we are “at a challenging moment for global food security” ... therefore we have to ... **“act together to craft bold and coordinated policy responses”** which include **“urgently unlocking all possible resources [...] to support smallholder and family farmers to increase productivity and self-reliance”**.



**Sustainability
Improvement of Food
production**

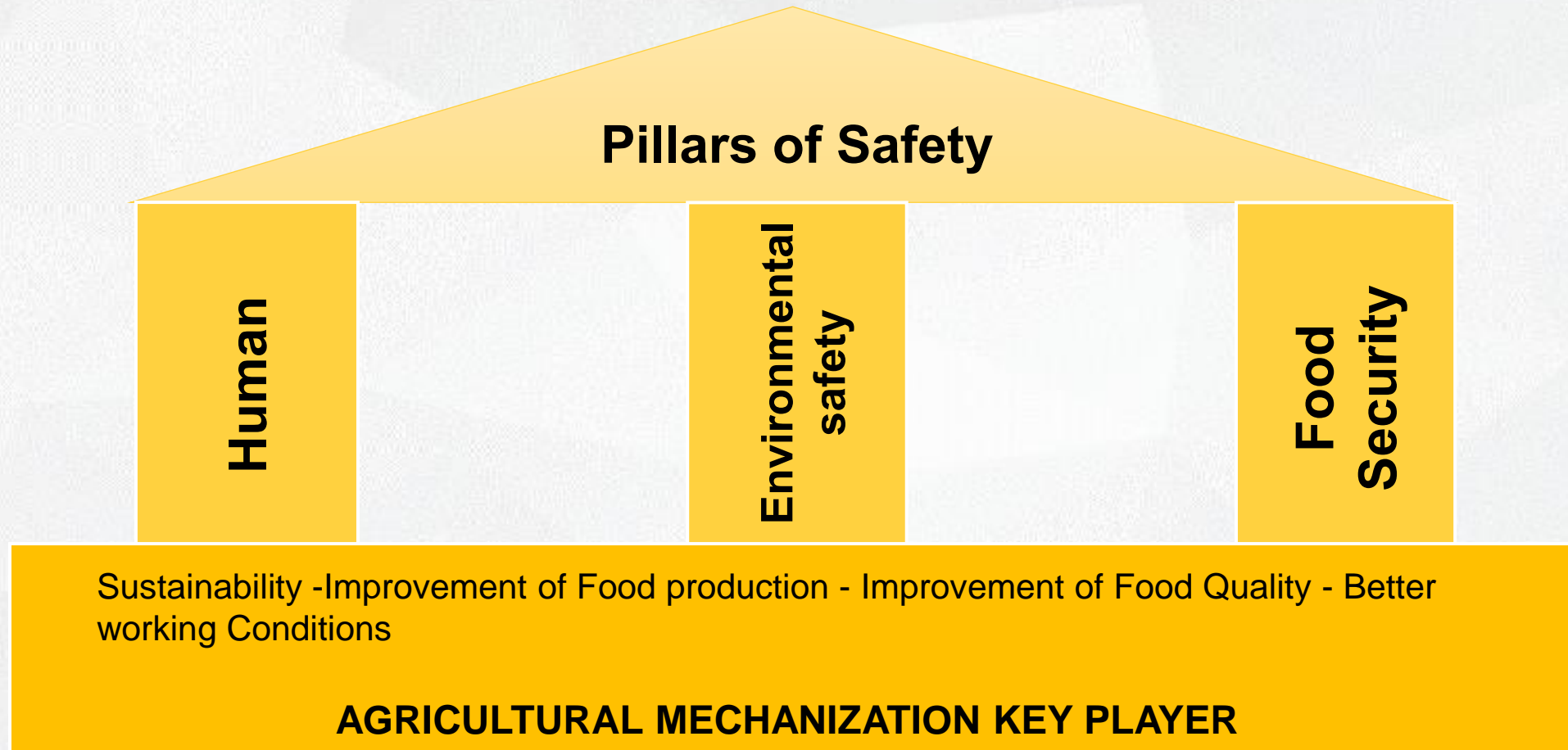
**Improvement of Food
Quality/Safety**

Better working Conditions



**Agricultural
Mechanization
plays a Key Role**

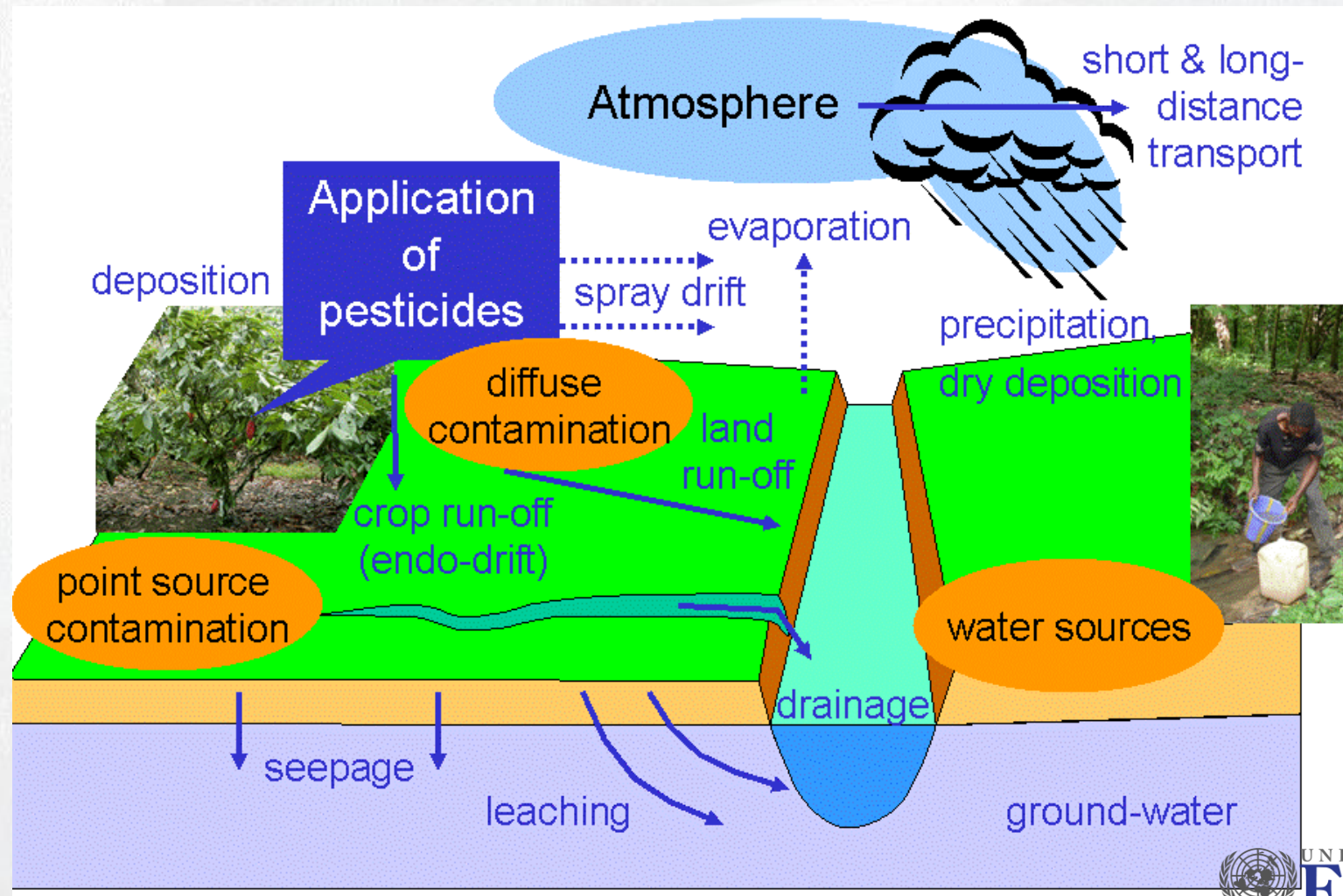
1/2 THE FUTURE TRENDS OF AGRICULTURE



1/3 THE FUTURE TRENDS OF AGRICULTURE



1/4 THE FUTURE TRENDS OF AGRICULTURE



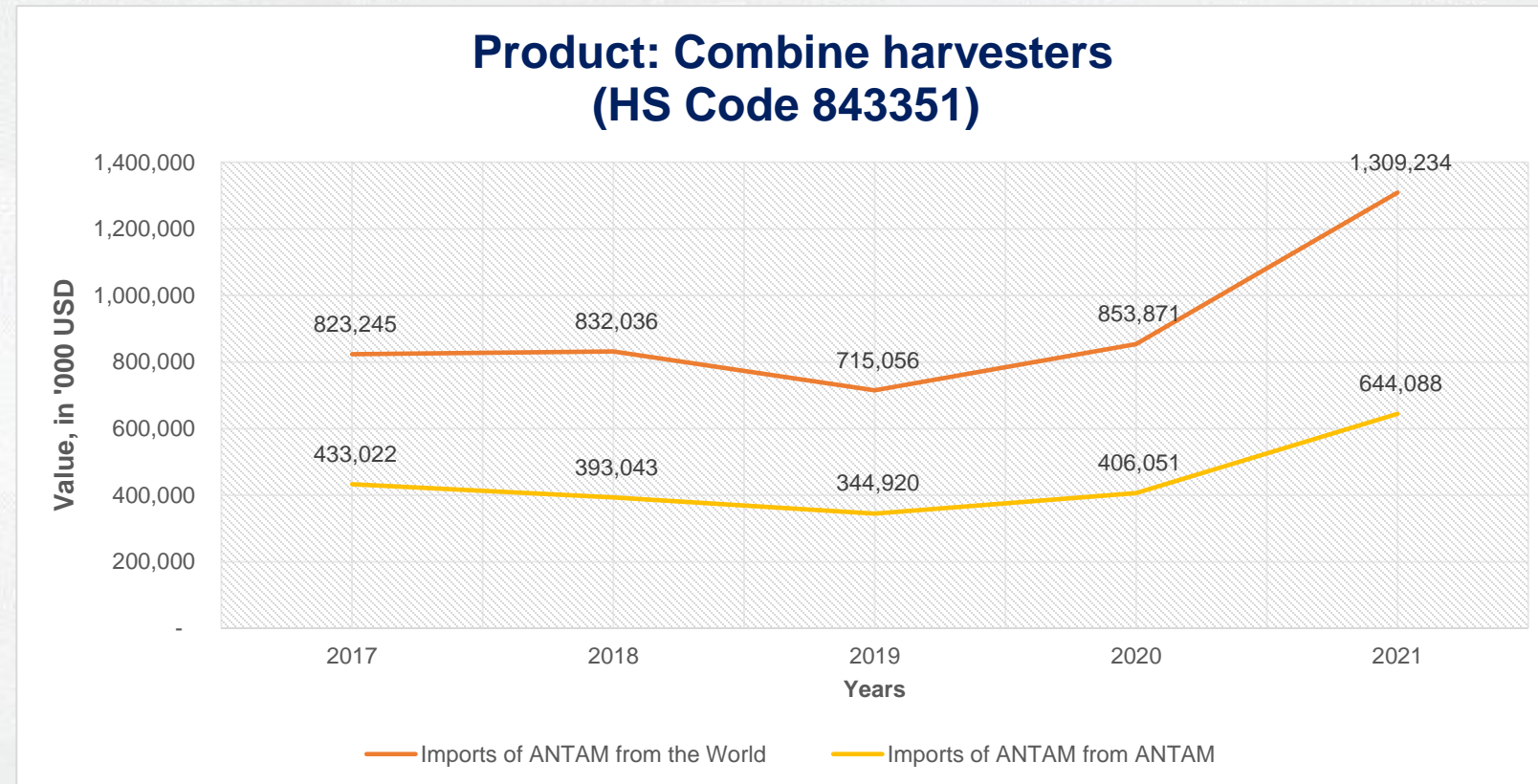
1/4 THE FUTURE TRENDS OF AGRICULTURE



2/1 STATUS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY



- In 2021, CSAM-20 countries imported 1 bln 309 mln 234 thsd USD worth of combine harvesters from the World
- **Only 49% (644 million 88 thousand USD worth) of ANTAM imports for this product originated from the CSAM-20 countries**
- Huge potential to import from the region countries, if standards harmonized
- ANTAM imports from ANTAM countries and from the World in 2021 exceed the pre-COVID levels (compare with 2017-18 data)

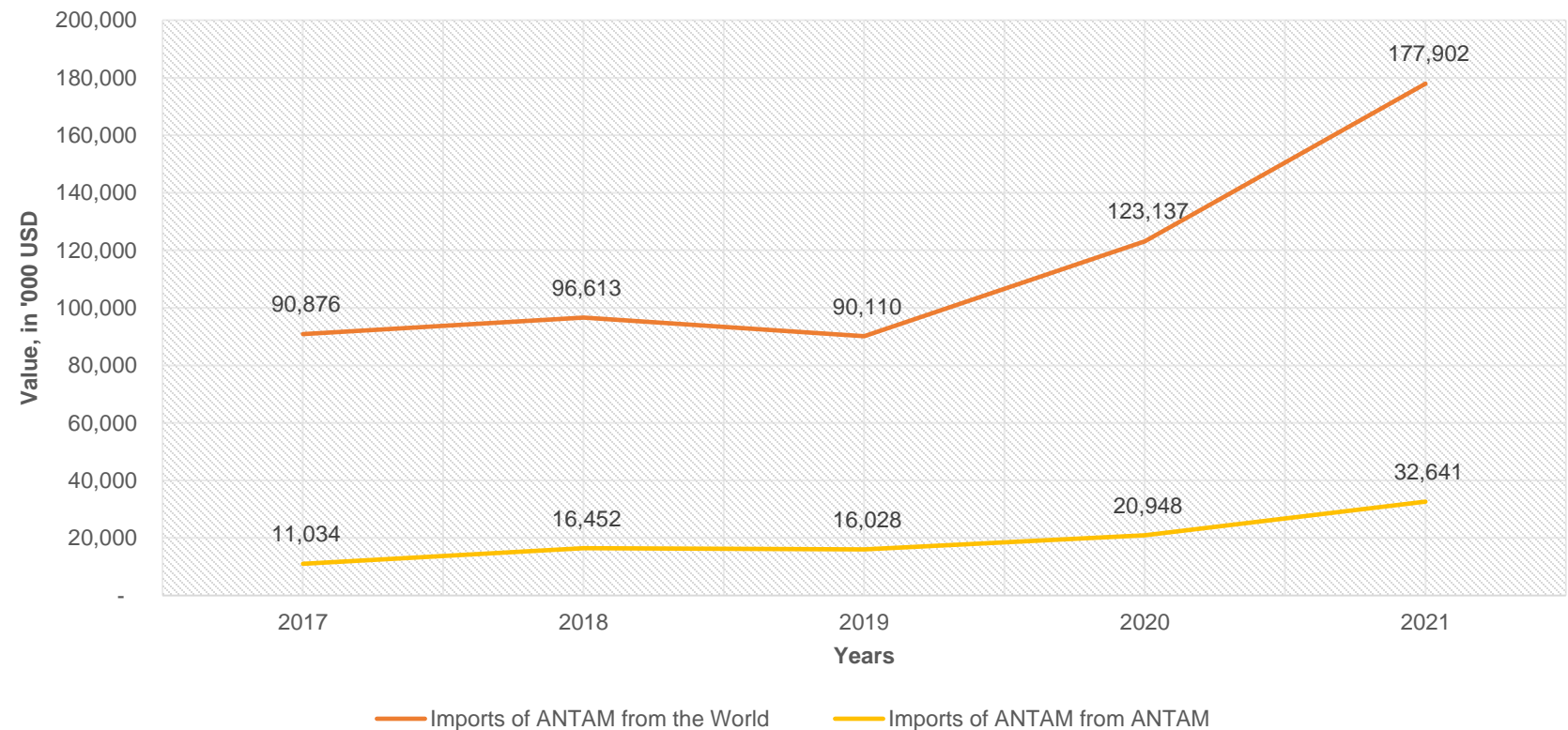


2/2 STATUS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY



- Standard paddy transplanters are included in the product group "No-till seeders, planters and transplanters"
- In 2021, ANTAM countries imported 177 mln 902 thsd USD worth off this product from the World.
- **Only 18% (32 million 641 thousand USD worth) of ANTAM imports for this product originated from the ANTAM countries**
- Huge potential to import from the region countries, if standards harmonized.
- ANTAM imports from ANTAM countries and from the World in 2021 exceed the pre-COVID levels (compare with 2017-18 data)

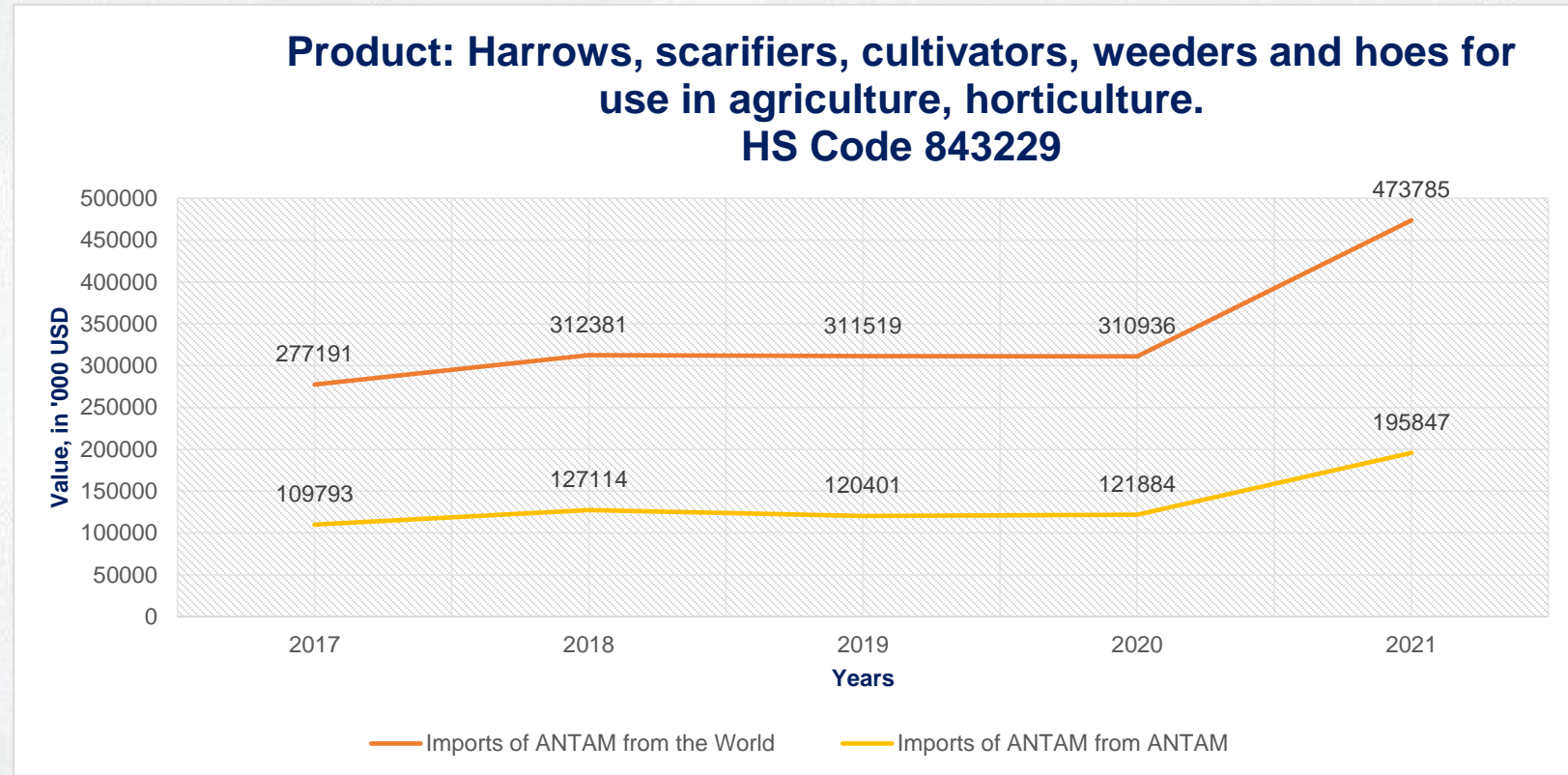
Product: No-till direct seeders, planters and transplanters. HS Code 843231



2/3 STATUS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY



- Standard mini power tillers are included in the product group harrows, scarifiers, cultivators, weeders and hoes for use in agriculture, horticulture
- In 2021, ANTAM countries imported 473 mln 785 thsd USD worth of these products from the World.
- **Only 41% (195 million 847 thousand USD worth) of ANTAM imports for this product originated from the ANTAM countries.**
- Huge potential to import from the region countries, if standards harmonized.
- ANTAM imports from ANTAM countries and from the World in 2021 exceed the pre-COVID levels (compare with 2017-18 data).

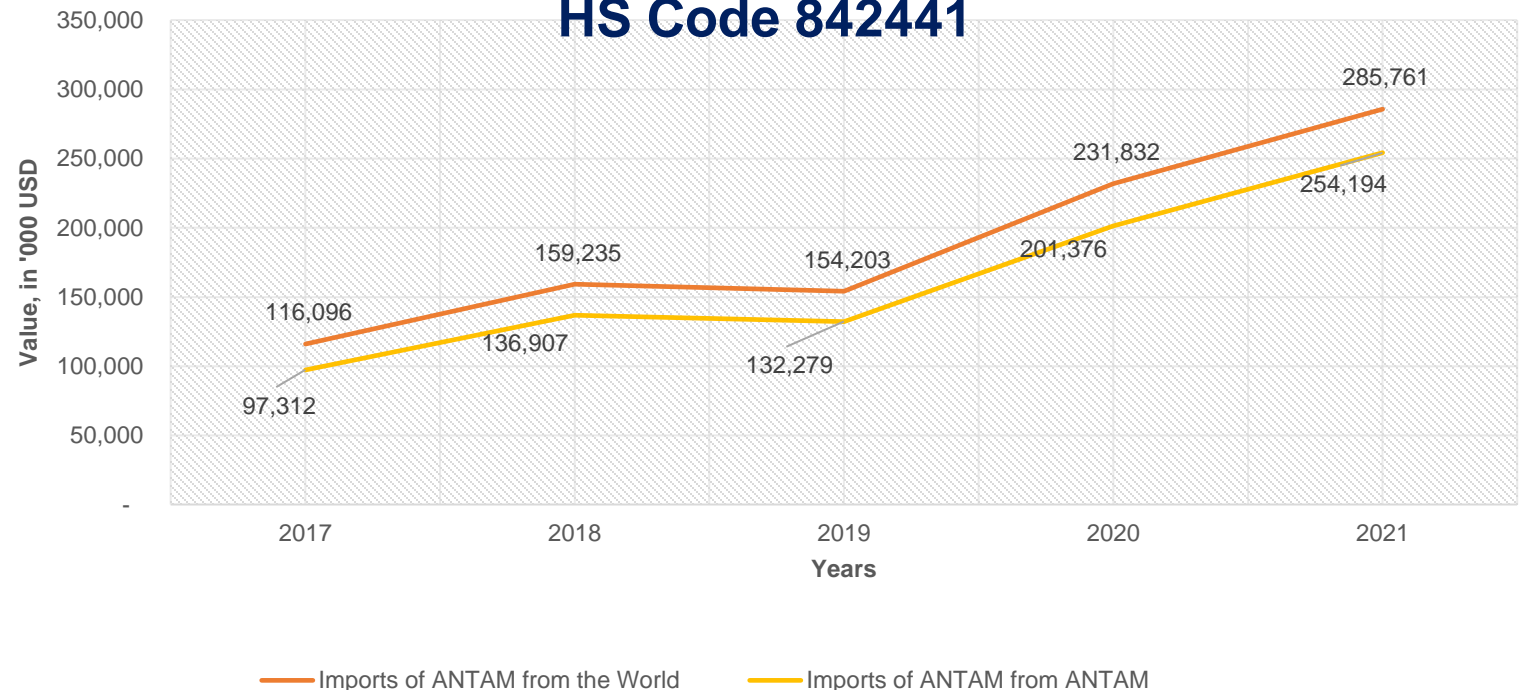


2/4 STATUS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY



- In 2021, ANTAM countries imported 285 mln 761 thsd USD worth off this product from the World.
- **Large portion - 89% (254 million 194 thousand USD worth) of ANTAM imports for this product originated from the ANTAM countries**
- Market potential in the region have been virtually utilized. Only 11% of the sprayers are imported from outside the ANTAM countries.
- ANTAM imports from ANTAM countries and from the World in 2021 exceed the pre-COVID levels (compare with 2017-18 data).

Product: Portable agricultural or horticultural sprayers HS Code 842441



2/5 STATUS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY

- Import of all of the products for which standards developed is increasing
- For 3 out of the 4 products, ANTAM countries import 50-80% more products (value-wise) from the rest of the World.
- There is a huge market potential for most products in the region. **Harmonization of the standards may potentially boost trade**, for example, for combine harvesters by up-to \$600 mln.
- COVID did not have a lasting negative effect on these products and import of these products (both from ANTAM countries and from the World) significantly exceed pre-COVID levels. This also means there is an increasing demand for these products.

2/6 STATUS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY

Some countries have a trade surplus in agricultural machinery (more export than import).

Other countries import more than they export.



3/1 TRENDS OF REGIONAL TRADE OF AGRICULTURAL MACHINERY

Unlike many other sectors the total trade value of agricultural machines did not experience a dramatic decrease.

The growth has been from 2019 to 2020 of 1,6 %, **from 2020 to 2021 of 37%** (from 17,984 to 24,478 US \$ million).

According to the “future trends” there is a general need for **more quality** in terms of “**human safety**”, “**quantity/quality production**”, “**environmental safety**” in order to meet international market’s requirements.

4/1 REQUIREMENTS FOR A BETTER TRADE OF AGRICULTURAL MACHINERY

Agriculture machinery has become much more prominent in the farming process and ensuring quality of technology is now more important than ever.

Common rules ensuring requirements are fundamental to provide for a basic level of quality on the market assuring all stakeholders for a fair competition and at the same time the best value for public and private investment.

In the next part of the STUDY we will assess how a common certification system basing on harmonised standards and methodologies can provide benefits to the whole Asia and Pacific Region.



5/1 IMPORTANCE OF HARMONISED STANDARDS

Standards set **common criteria** and establish a minimum level of **requirements** while there is a growing need for quality related to products (agricultural machines) and to their best use in terms of performances and safety.

Harmonization of standards offers a common platform of requirements to be fulfilled.

Standards can be national as well as international and have to be harmonized basing on an **Agreement** among countries.



5/2 NEED FOR ASSESSMENT = TESTING

TESTING = critical evaluation or a means of determining the presence, quality or truth of something.

It plays an important role in the assessment process stated in a **methodology** based on harmonized standards.

Methodologies (or CODES) provide for a unique interpretation of standards and make sure that all test are performed with the same equipment and expertise providing for the same results.



5/3 NEED FOR INDEPENDENT SUPERVISION OF THE SYSTEM = CERTIFICATION

CERTIFICATION = the provision by an **independent body** of written assurance that the product, service or system meets specific requirements. Certification is performed by an **external** certification body.

It is the final act of a process to state officially the positive results of a testing activity based on well defined methodologies containing harmonised standards or **CODES**.



ANTAM = Asian Network for Testing Agricultural Machines

The Network aims to a complete **certification system** and has the purpose to agree in **common requirements/standards/tests with full respect of National regulations** and the purpose to provide agricultural machinery with minimum requirements to the whole Asia and Pacific Region.

ANTAM



As noted by the United Nations Secretary-General António Guterres during World Food Day celebrations in October 2022, we are “at a challenging moment for global food security” ... therefore we have to ... **“act together to craft bold and coordinated policy responses”** which include “urgently **unlocking all possible resources [...] to support smallholder and family farmers to increase productivity and self-reliance.**”



This is exactly what ANTAM is developing through its activities with the participation of all Member Countries

6/3 ANTAM – THE NETWORK

TWG - Technical Working Groups (with experts having the task to develop the Codes)



Setting of Technical requirements and testing methods

NDA – National Delegated Authority (one for each country responsible for the activities performed in the country (Testing Stations accreditation))

National organisation/control of activities

Deliberative Committee/Ratifying Committee = Committees for Approval of Test Reports performed by the accredited Testing Stations

International Independent assessment

SECRETARIAT – Certification Body with the the task to overview all activities and release certifications = independent body (CSAM)

International Independent issue of certificates

TRU – Technical Reference Unit with the task to support the Secretariat and the TWGs

Independent support

RESULTS AND BENEFITS FROM ANTAM

ANTAM is the best tool to meet the new challenges of the future in terms of quality and quantity of food production.

It's well known that agricultural machinery are fundamental as well as the new technologies. But there I the need for assessing minimum requirements in order to assure quality and optimize investments from the private and public sector. Even subsidy policies should be based on minimum requirements for agricultural machines to benefit the whole agricultural sector.

RESULTS AND BENEFITS FROM ANTAM

During the development of the Codes questionnaires have been circulated in order to find the “gaps” of agricultural mechanization that can be fulfilled with the ANTAM network.

An example comes from the **harvesting machine’s losses** that in some case are over 15% - in this case setting minimum requirements can boost the country production by 10 % with no other change in inputs. Another example might come from safety requirements that can reduce injuries and consequently the social cost of GVTs.

Thank You

