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## AREA YIELD INDEX INSURANCE (EXPERIENCES AND CHALLENGES)

### MACEDONIA

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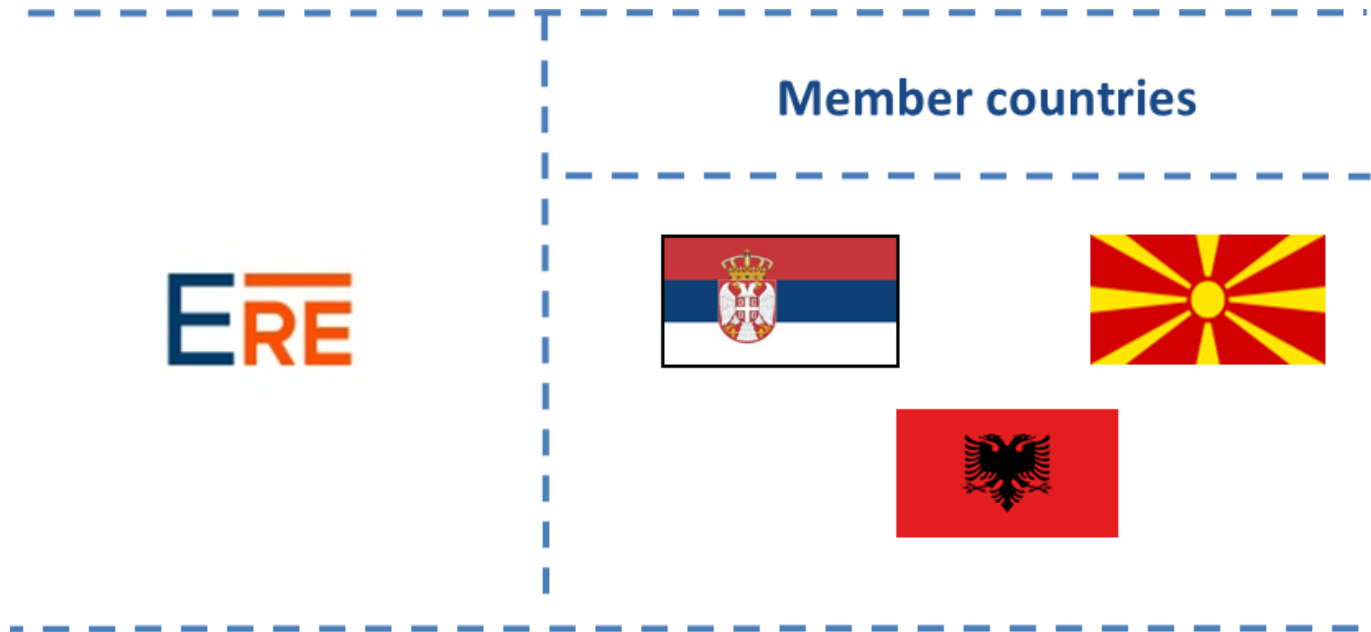
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*Agriculture Insurance Conference,  
1<sup>st</sup> November 2018, Skopje, Macedonia*

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## AGRICULTURE SECTOR IN MACEDONIA - FACTS

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The best prospect industry sector for the country.

In 2017:

**7.9% of GDP** accounted for agriculture and agribusiness.

**16.2%** of the total number of persons **employed**.

**10.71%** constituted agriculture, in total **export**.

**Main export products:** fresh and processed vegetables and fruits, lamb, tobacco and wine (bulk and bottled).

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## AGRICULTURE INSURANCE IN MACEDONIA

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Agriculture is highly vulnerable to climate risks: **hail, flood and drought.**

The interest of farmers in insurance is insignificant.

Evident drop of insured farmers from 5% in 2014 to 2% in 2017.

**Reason:** post- disaster payments provided by the Government in amount of up to 100% of the loss.

**Offered  
agriculture  
insurance at the  
market:**

**Indemnity agriculture  
products**

**Index based insurance**  
(only by ERe Insurance  
partners)

**AREA YIELD INDEX INSURANCE – COMMERCIAL  
SALE THROUGH INSURANCE PARTNERS**

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## AREA YIELD INDEX INSURANCE

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- **Agriculture insurance that offers protection against all natural catastrophes and biological perils that could influence on reduction of crop yields.**
- **The specifics of the product is that** the farmer insures the average municipal expected yield of the crop, not the individual yield. **The losses are measured as the difference between the actual yield and the insured average yield (defined in contract as % of average expected yield) in the indexed municipality.**
- **Crops:** wine grapes, wheat, maize, barley, sunflower.
- **Expected yield:** 5 year average, SSO data.
- **Coverage:** 50-80% of the expected yield.

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## AREA YIELD INDEX INSURANCE

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- **Cover period:** The entire vegetation period of the crop (from sowing to the harvesting).
- **Method of indemnification:** The SSO is required to publish the crop yield data no later than 25.12. on a given year. Once the yield data for the year is released, an insurance payment is made automatically if the real municipal yield is lower than the insured average municipal yield.
- The farmer or the farming business has no obligation to prove that he/she has suffered any losses, or provide evidence of the level of losses incurred.
- The premium is 60% subsidised by MAFWE or up to 2.500 Euros per crop, per farmer/farm holding.

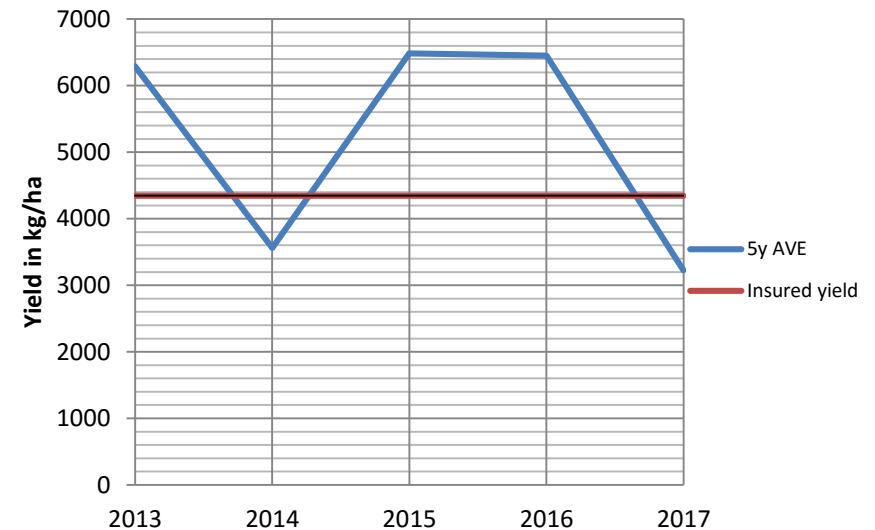
## AYII VS. INDEMNITY PRODUCTS AT THE MACEDONIAN MARKET

Characteristics	AYII (index based insurance)	Indemnity based insurance
<b>Risks:</b>	<b>all natural catastrophes, biological perils that could influence on reduction of crop yields</b>	<b>Basics risks + storm, spring frost + flood</b>
<b>Coverage:</b>	<b>All vegetation period</b>	<b>Only May – October (several months)</b>
<b>Based on:</b>	<b>Index based, based on municipal average yield</b>	<b>Individual, based on individual farm yield</b>
<b>Indemnification:</b>	<b>Automatic, no need of loss adjustment. Payout done after harvesting of the crop</b>	<b>Through loss adjustors after loss is reported</b>



## AYII EXAMPLE

Municipality Sveti Nikole		
<b>WINE GRAPE</b>		
Municipality expected yield in kg/ha	5.434	
Coverage	<b>70%</b>	<b>80%</b>
Insured yield in kg/ha (% of the expected yield)	3.803,80	4.347,20
Value of the wine grape in EUR (source: MAFWE )	0,16	0,16
Insured area in ha	1	1
Sum insured per ha (Euro/ha)	618	707
Total sum insured in Euro/ha	618	707
<b>Premium in EUR per ha</b>	<b>104</b>	<b>151</b>



If we take the yield of Sveti Nikole for 2017, which according to the data of the SSO is reduced due to climatic event, i.e. 3.225 kg /ha, for 80% coverage the pay-out should be **184 Euros per ha (26% recorded decline of the yield)**.

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**AYII EXAMPLE CONT.**

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<b>Municipality SVETI NIKOLE, WINE GRAPE, 80% coverage</b>	
<b>Premium in EUR per ha</b>	<b>151 Euros</b>
<b>Premium in EUR per ha net of subsidy (40% paid by the farmer)</b>	<b>60,4 Euros</b>
<b>Insured crop market value eur/ha</b>	<b>883 Euros</b>
<b>Insurance as percent (%) of insured crop market value</b>	<b>6,84%</b>

## EUROPA RE SUB-SOVEREIGN AND SOVEREIGN PRODUCTS

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## EUROPA RE SOVEREIGN AND SUB-SOVEREIGN PRODUCTS

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- **Institutional involvement:**
  - ✓ **Sub- sovereign coverage (AYII on municipal level)** – the municipality chooses types of crops, insured area and level of insurance coverage that fits the local budget. In case of a drop of yield below average historical yield (due to any climatic, biological or natural risk), insurance payout is made.
  - ✓ **Sovereign coverage as budget protection against agriculture catastrophic risks (AYII model for R. Macedonia)** – instrument developed based on Area Yield Index Model, which triggers in case of certain drop of the yield on chosen crops. User is MAFWE, beneficiaries are farmers.

Sovereign coverage can help government to build financial resilience to more frequent and more severe natural catastrophes and avoid allocating additional funds for post-disaster compensation in case of extreme events.

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## LONG RUN AIM: NATIONAL AGRICULTURE INSURANCE POOL

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➤ ***WHY Agricultural Pool?***

- To increase insurance penetration among farmers.
- To reduce government fiscal exposure to extreme weather events in agriculture.
- To provide farmers with well understood reliable agricultural insurance products meeting their weather risk management needs.
- To prevent unfair price competition.
- To ensure swift and unbiased claims settlement
- To increase farmers' awareness of insurance
- To better coordinate government post-disaster compensation policies with the insurance market development strategy.

➤ ***HOW Pool?***

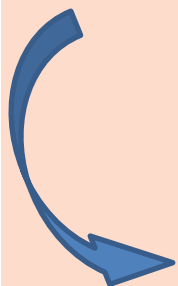
- Through launch of several standardized insurance product (all risks included).
- Through centralized and standardized loss adjustment activities relying on new technologies.
- Through involvement of the insurance sector.

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## KEY CHALLENGES FOR AGRICULTURE INSURANCE IN MACEDONIA

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- **Raise the awareness of the farmers for agriculture insurance**



- Decrease post-disaster payments provided by the Government below the level offered by the standard insurance coverage.
- Link insurance premium subsidies to crops not to farmers or farm holdings.
- Provide swift payment of subsidised premium to insurance companies.
  
- **Link agriculture production subsidies with agriculture insurance.**
- **Implement a sustainable Sovereign Agriculture model followed by the launch of the National Agriculture Insurance Pool**

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THANK YOU FOR YOUR ATTENTION

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