



Organisation  
Mondiale  
de la Santé  
Animale

World  
Organisation  
for Animal  
Health

Organización  
Mundial  
de Sanidad  
Animal

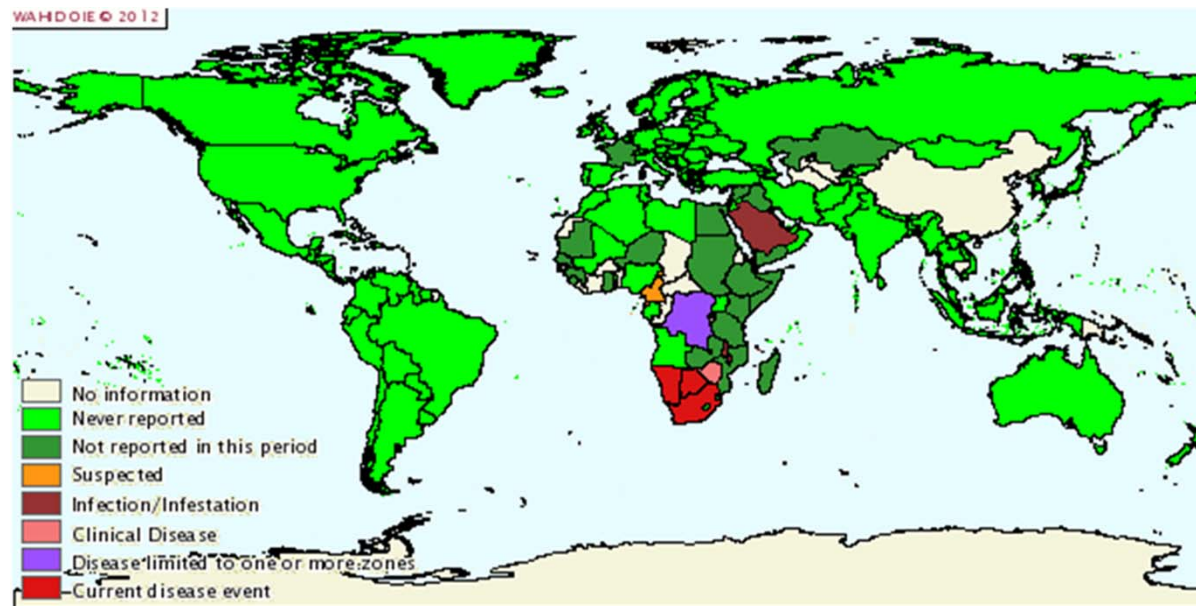
# **RVF In the Middle East**

## **An overview**

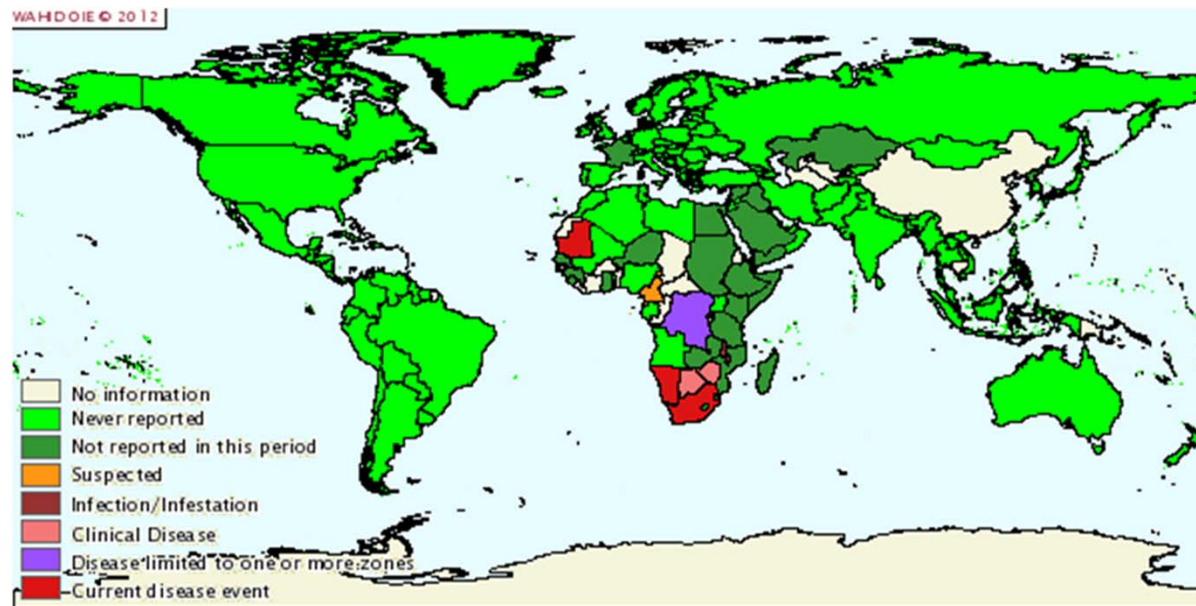
**Inter regional conference on RVF**  
**Mombasa - Kenya**  
**13-15 Nov 2012**

**Dr. Ghazi Yehia**  
OIE Regional Representative for the Middle East

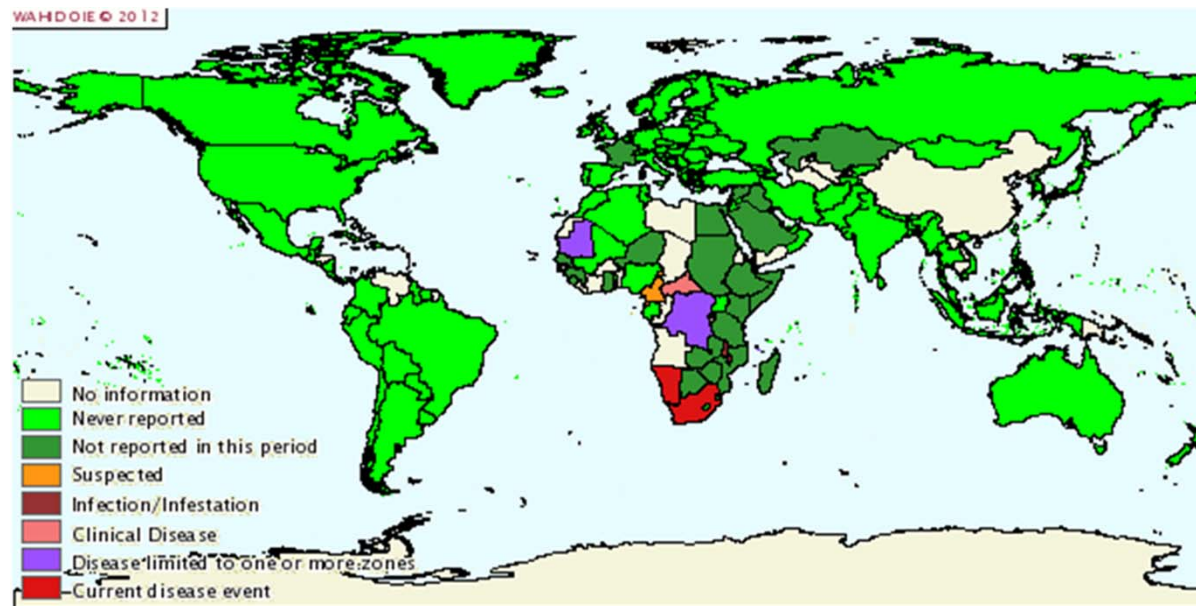
# RVF situation worldwide 2010



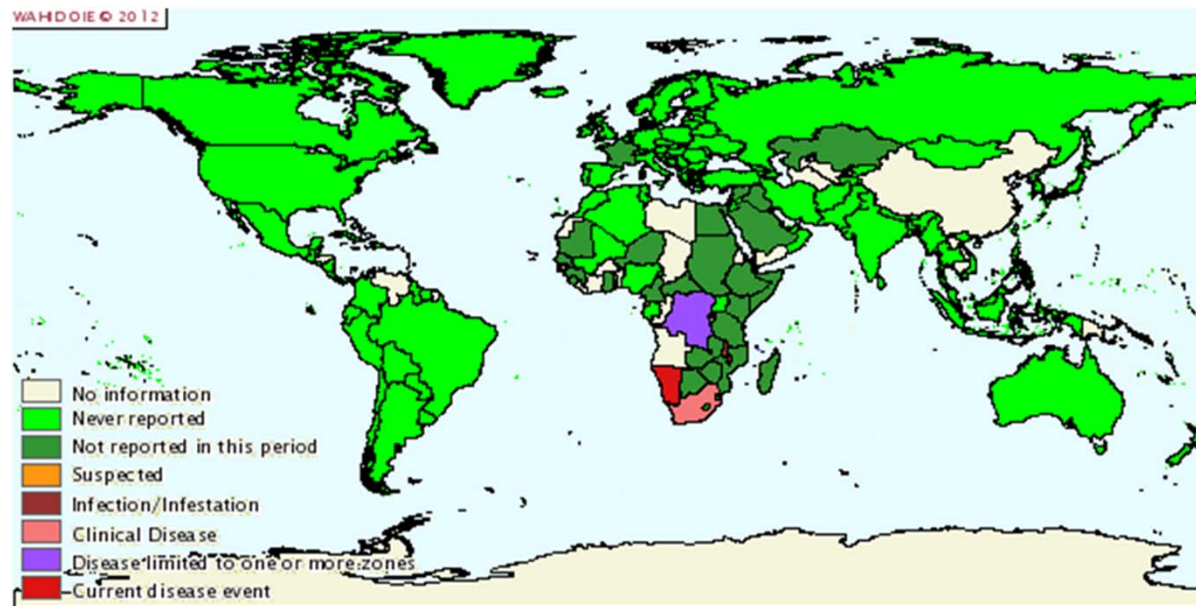
# RVF situation worldwide 2010



# RVF situation worldwide 2011

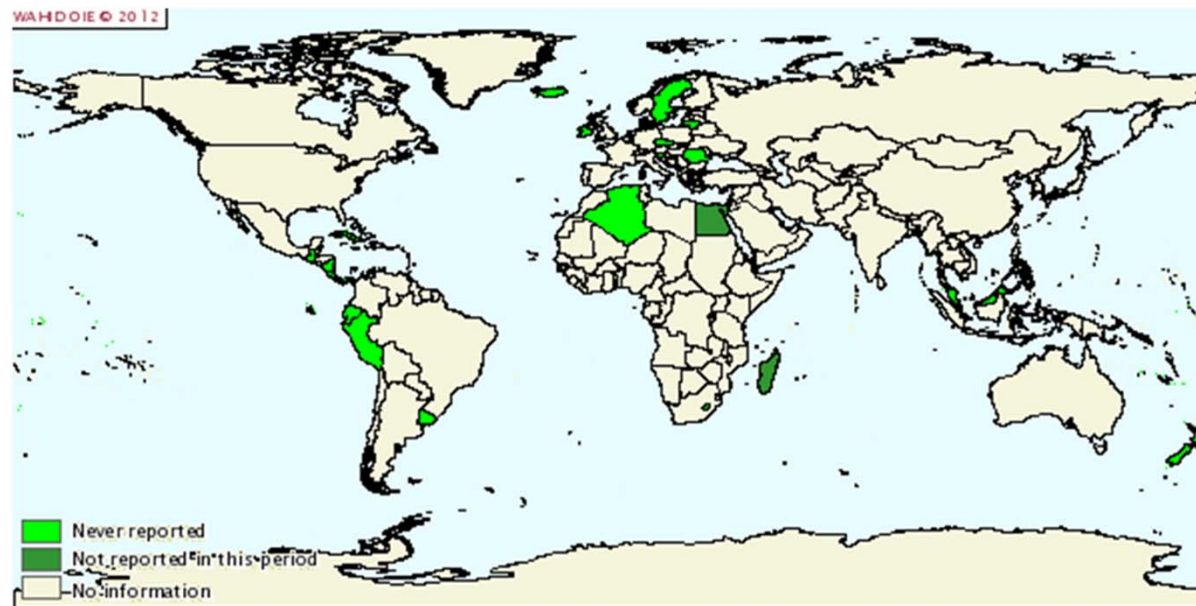


# RVF situation worldwide 2011

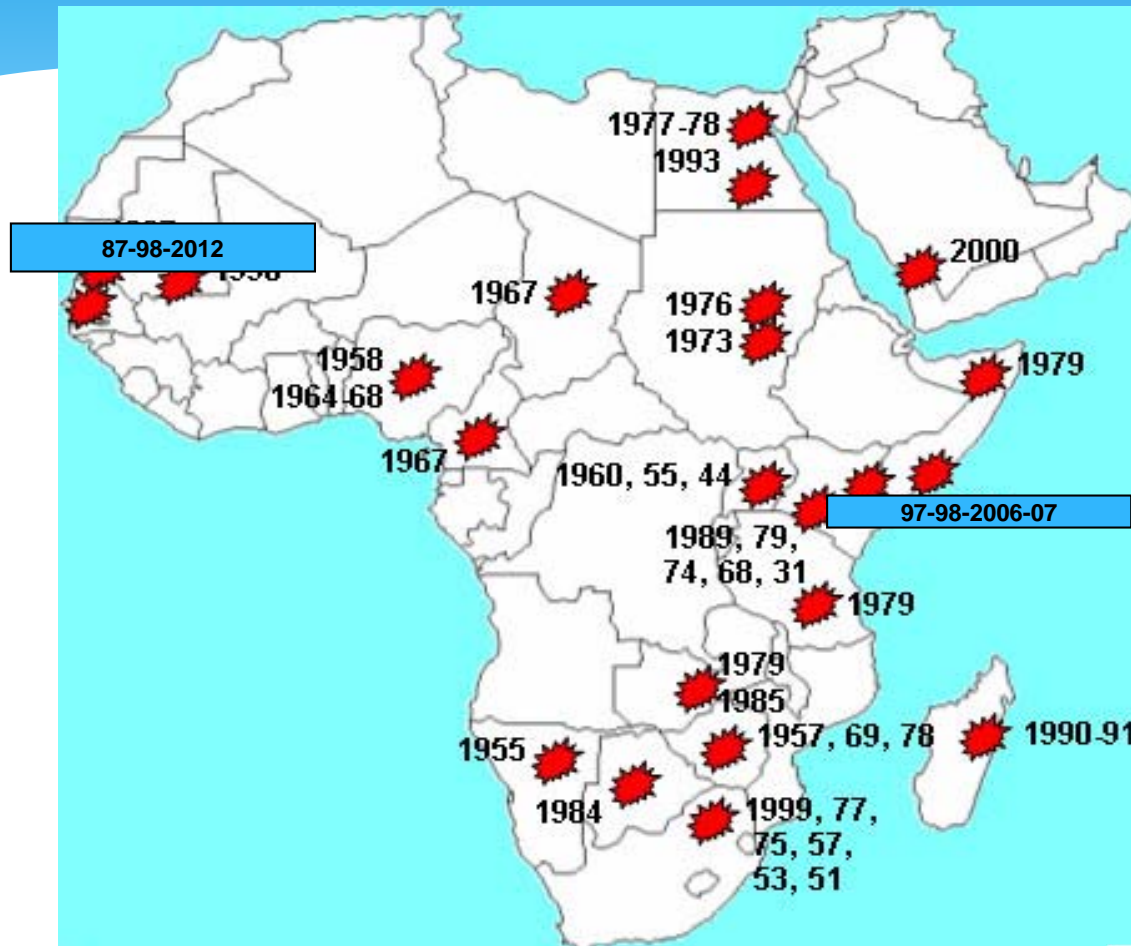




# RVF situation worldwide 2012



# Chronology of Rift Valley Fever epidemics







# Introduction of RVF in the ME

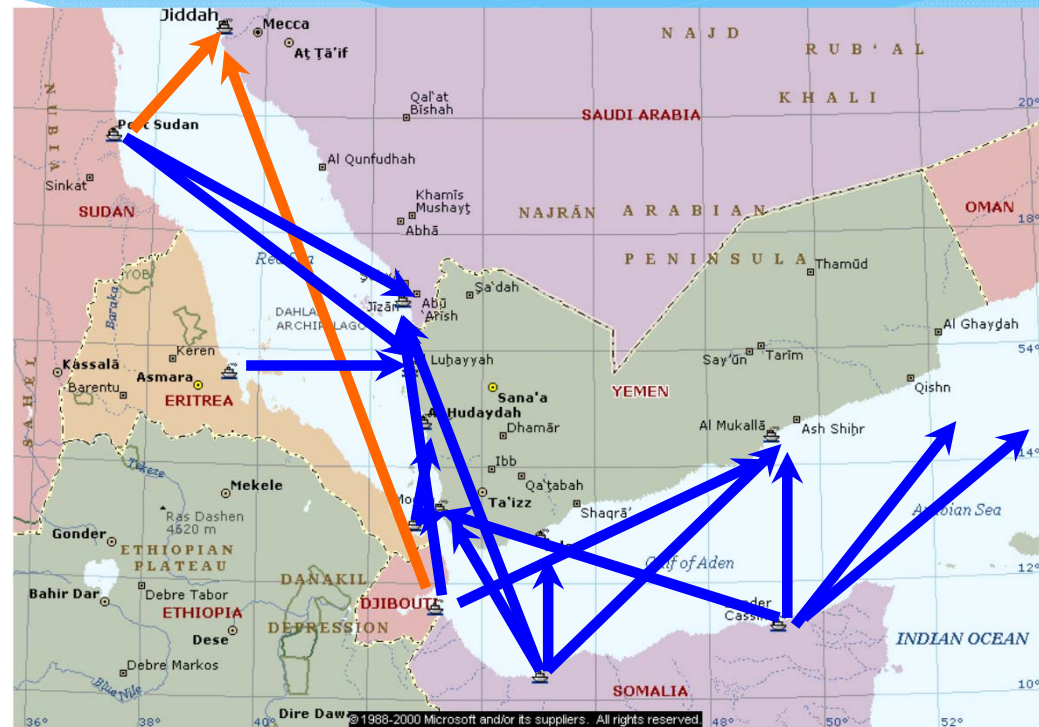
- Rift Valley Fever was restricted to sub-Saharan Africa until it was detected in Egypt, 1977
- Since then, there have been several recurrences in Egypt causing explosive epidemics (1977-1978, 1986-1987), resulting in hundreds of human deaths and heavy losses in the animal industry
- The introduction of RVF into Yemen and Saudi Arabia in 2000, its first appearance outside the African continent, was of particular concern related to its impacts on public health, causing human suffering and mortalities .

# Introduction of RVF in the ME

- \* The Tihama/Jizan regions of Yemen and Saudi Arabia were principally involved.
- \* Their ecological characteristics are identical with those across the Red Sea in Africa. The Red Sea constitutes the floor of the Great Rift Valley before its separation from the African continent.
- \* Those regions are also the main destination of the animal trade from the Horn of Africa to the Middle East

# Introduction of RVF to the ME

- \* About 15 millions
- \* cattle, goat, sheep
- \* are imported each year
- \* from the Horn of Africa
- \* to the Gulf Peninsula
- \* Most of them for
- \* the holly periods
- \* (Hajj – Eid)



# Egypt

- Rift Valley Fever was clinically recorded in Egypt for the first time in August of 1977, in sheep, cattle, buffalo, camels, and man.
- \* An extensive epizootic of the disease began. Increased rates of mortality and abortion were reported for all domestic animals but sheep appeared to be particularly affected.
- \* The initial outbreaks were reported from Aswan Governorate (800 km south of Cairo). These were followed in September, October, and November, 1977, by reports of disease from Sharqiya Governorate (70 km northeast of Cairo).
- \* The predominant clinical syndrome in humans was a febrile dengue-like disease, but numerous encephalitis, ocular, and fatal hemorrhagic illnesses were recorded. During the epidemic an estimated 18,000 cases occurred, with 598 deaths.

## In Egypt, a different pattern

- \* Retrospective serosurveys have indicated that RVFV was not present in Egypt before the 1977-78 epidemic.
- \* After the outbreak in Egypt was recognized in 1993, vaccination of livestock with killed RVFV vaccine was intensified.
- \* In 1994, live-attenuated RVFV vaccine was used to vaccinate nearly 6 million domesticated animals throughout Egypt.
- \* Different sources consider that Egypt has an appropriate capacity to tackle the disease (surveillance, rapid response, public&veterinary inter-sectoral collaboration) (G. Davis, 2007)



# Saudi Arabia

- \* The Gizan region – a rural area and main occupation is animal husbandry.
- \* Climate favoring breeding of mosquitoes.
- \* RVFV isolation from *Culex (Culex) tritaeniorhynchus* and *Aedes vexans arbiensis*; subsequently demonstrated to transmit the disease.

# Yemen

In year 2000, surveillance efforts documented widespread disease among humans and animals in the area located on a coastal plain that extends from the southern tip of Yemen into the Gizan area of the Kingdom of Saudi Arabia.

It was unclear whether there was a recent introduction of RVF virus into the Arabian peninsula or the emergence of an epidemic resulting from unique ecologic conditions.

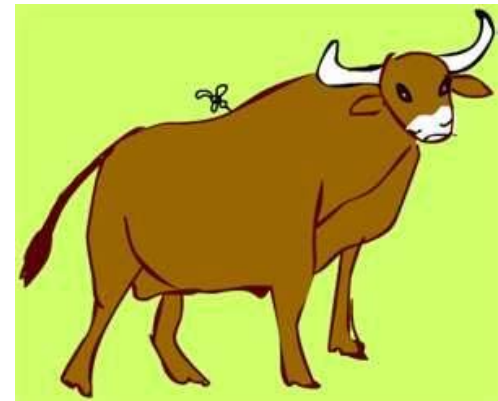
The geographic distribution of disease hampered surveillance efforts and presented a challenge for disease-control efforts.

# @ Risk areas for RVF in the ME

- \* Flood-plains of river systems
- \* Dambo/alluvium habitat in surface/river drainage systems, liable to flood
- \* Up stream of artificial and natural lake/dam formations
- \* Irrigated areas
- \* Wet natural grasslands

# @ Risk areas in the ME

- \* North Africa, Middle East, Near East (Eastern Mediterranean Region) are at greatest risk.
- \* Riverine/delta/marshlands/irrigated areas, seasonal floodplains etc.
- \* Populations of amplifying hosts present (buffalo, cattle sheep and goats).



# When to suspect RVF

- \* Sudden, simultaneous and multifocal onset of abortions among sheep, goats, cattle or camels and high mortality rate particularly in newborn lambs, kids and calves over a wide area;
- \* Other severe, often hemorrhagic clinical signs and gross and histological lesions, especially in livers of young animals or aborted fetuses;
- \* Unusually heavy and persistent rainfall resulting in flooding over a wide area and subsequent massive build up in vector populations;
- \* During the long inter-epidemic periods, RVFV is maintained silently within the cryptic cycle and only sporadic, small and local epizootics may occur.



## Receptive Areas should have

- \* Presence of potential vectors in above areas.
- \* (Culex, Aedes, Anopheles, Mansonia etc.)
- \* Presence of high populations of amplifying/disease hosts.
- \* Mechanical transmission by Culicoides & other biting flies.

(Glyn Davis, Cairo 2007)

## How to minimize threat of RVF

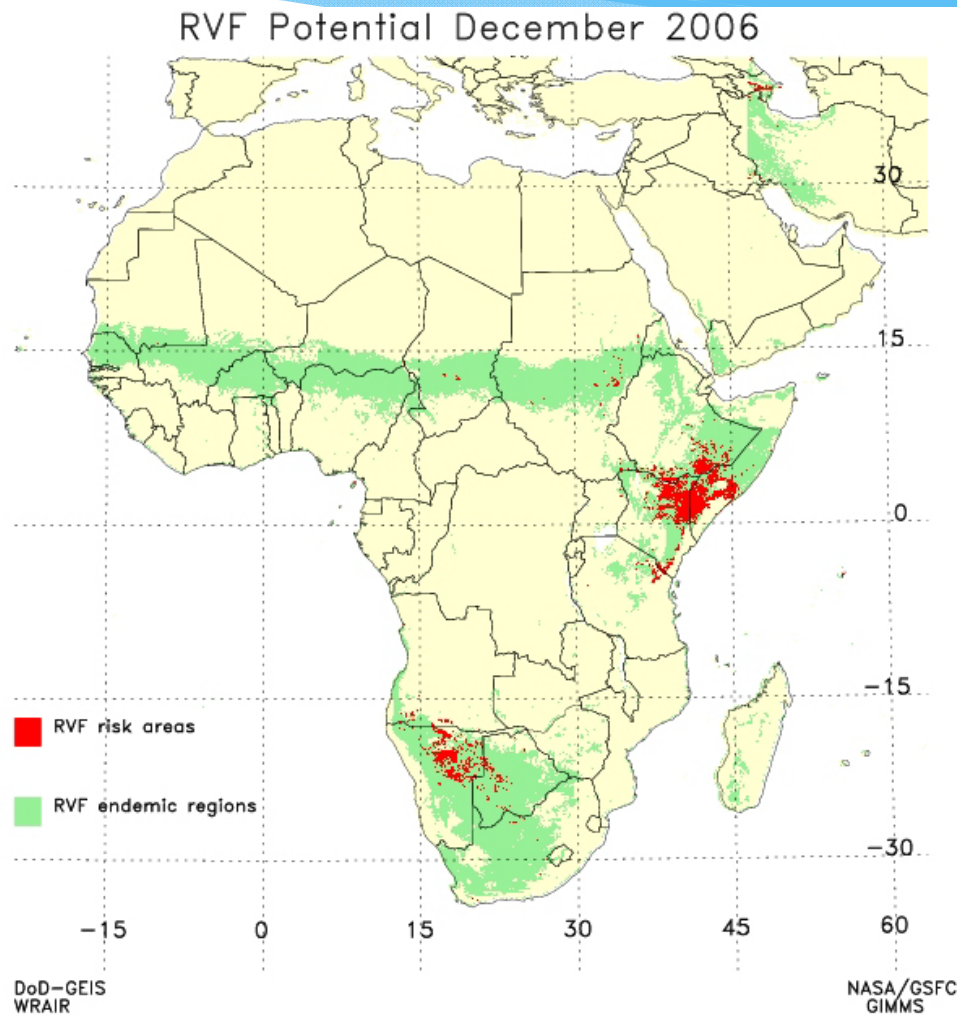
- ✓ **Good Governance of VS:** legislation, policies and resources, in compliance with OIE international standards on quality of national animal health systems .
- ✓ Surveillance mechanism of the entire national territory under governmental supervision
- ✓ Relevant contingency plan – vaccination strategy
- ✓ Early detection
  - Awareness
  - High quality of public and private component of Veterinary Services

# How to minimize threat of RVF

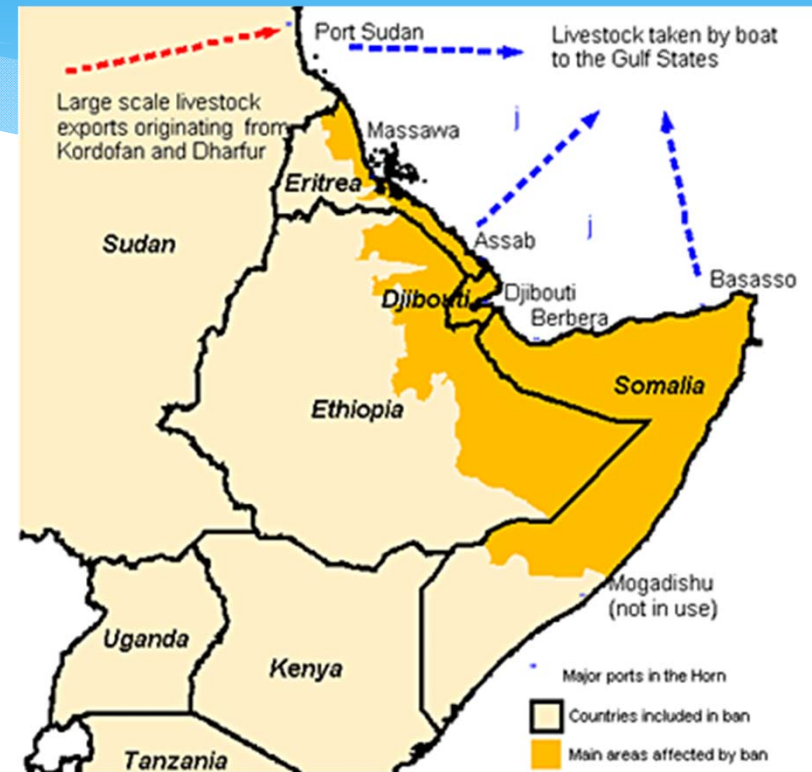


- ✓ Rapid and transparent notification
  - Appropriate national chain of command
- ✓ Rapid response
  - rapid confirmation of suspects
  - confinement and humane stamping out
  - use of vaccination if appropriate
  - Compensation Mechanism
- ✓ Respect OIE Standards for RVF

# RVF occurrence can be predicted



# Legal Trade Can prevent the spread of RVF



- \* Trade of livestock between the Horn of Africa and the Arabian peninsula (Port of Berbera, Northern Somalia)  
Photos FAO- Marc Bleich



## How to safeguard trade?

- \* RVF outbreaks should not be considered a result of trade **but, instead, to have an impact on trade:**
  1. Reduced food security
  2. Reduced income
  3. Reduced agricultural livestock & productivity
  
- \* Trade should not be disrupted if proper measures are in place to mitigate the risk of the spread of the disease through trade in animals and animal products.

## Proper certification is needed

### Why such certification ?

- to secure the trade of animals and animal products between Horn of Africa and Middle Eastern Countries
  - to establish an Arabic – English certification, understandable by all importing or exporting countries
- to increase transparency in livestock trade
- to enhance trust between importing and exporting trade partners

# This Certification was developed

- Taking into consideration the zoosanitary situation in the Horn of Africa and Middle East
  - Enzootic diseases: FMD – CBPP – PPR...
  - Epizootic events: RVF
  - Eradication completion: Rinderpest
- in compliance with international standards (OIE)
- and according to the recommendations of OIE Regional commissions for Africa and ME ( meeting in Cairo 2004)

**OIE/AU-IBAR Seminar**  
**Implementation of Animal Health Standards: the Quest for Solutions**  
**Cairo (Egypt), 11-13 October 2004**

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**Recommendation No. 3**

**International standards for trade in animals and animal products  
and their impact on inter-regional trade**

5. *The certification system proposed by the OIE Regional Representation for the Middle East should be endorsed and adopted for inter-regional trade between Africa and the Middle East in animals and animal products.*
6. *The AU and OIE Member Countries of the Regional Commissions for Africa and the Middle East evaluate and establish export systems that would conform to regionally agreed sanitary certificates to further facilitate the trade in animals and animal products.*

HEALTH CERTIFICATE FOR EXPORT INTO THE TERRITORIES OF THE GULF COOPERATION COUNCIL  
COUNTRIES OF CATTLE FOR SLAUGHTER

شهادة صحية لتصدير أبقار الذبح إلى دول مجلس التعاون الخليجي

Name and address of consignor اسم وعنوان المرسل		EXPORTING COUNTRY وزارة			
Name and address of consignee اسم وعنوان المرسل إليه		Check point in the country of origin. المركز الحدودي في بلد المنشأ			
		Place of loading محطة التحميل			
		Country and place of destination بلد وعنوان المرسل إليه			
Identification of means of transportation مواصفات وسيلة النقل					
Total Number العدد الإجمالي	Identification number(s) رقم التعريف	Species النوع	Breed العرق	Sex الجنس	Age العمر
Additional information (if required) معلومات أخرى					
I the undersigned, official veterinarian, after considering all the supporting documents related to the sanitary information included in this certificate, certify that the animals described above have been examined this day, and meet all the requirements mentioned in the health attestation attached to this document. أنا الموقع أدناه، الطبيب البيطري المسؤول، وبعد الاطلاع على جميع الوثائق الثبوتية للمعلومات الواردة في هذه الشهادة، أفيد بأنه أجري الفحص على الحيوانات المعرف عنها أعلاه، وتبين أنها مستوفية جميع الشروط الصحية البيطرية المطلوبة.				Stamp and signature of the veterinary inspector: ختم وتوقيع الطبيب المسؤول:	
Place .....المكان				Date .....التاريخ	

Each separated page must be signed and stamped.

HEALTH CERTIFICATE FOR EXPORT INTO THE TERRITORIES OF THE GULF COOPERATION COUNCIL  
COUNTRIES OF CATTLE FOR SLAUGHTER

شهادة صحية لتصدير أبقار الذبح إلى دول مجلس التعاون الخليجي

HEALTH ATTESTATION  
بيانات صحية

I COUNTRY / ZONE OF ORIGIN/منطقة المنشأ/ بلد أو منطقة المنشأ

- The animals come from a country/zone, which is not under any sanitary ban for the concerned species, and where the following diseases are notifiable:  
1- إن الحيوانات المستوردة هي واردة من بلد/منطقة لا تخضع لأي حظر صحي خاص بالصلة المعنية وحيث أن الأمراض التالية هي تحت الإبلاغ الإيجابي فيه،  
- Foot and Mouth Disease (FMD) الحمى القلاعية  
- Rinderpest/ الطاعون البقري  
- Peste des Petits Ruminants (PPR) طاعون المجترات الصغيرة  
- Contagious Bovine PleuroPneumonia (CBPP) التهاب الرئة البقري المعدي  
- Rift Valley Fever (RVF) حمى وادي المتصدع
- The animals come from a country / zone where no case of RVF has occurred for at least 3 months prior to shipment.  
2- الحيوانات واردة من بلد / منطقة حيث لم تسجل أية حالة لمرض حمى وادي المتصدع منذ ثلاثة أشهر من تاريخ الشحن.
- The animals come from a country / zone free or provisionally free from Rinderpest, or in which routine vaccination is carried out to prevent Rinderpest.  
3- الحيوانات قادمة من بلد / منطقة خالية أو معتبرة خالية رسمياً من مرض الطاعون البقري، أو من بلد / منطقة تعتمد التحصين الوقائي ضد هذا المرض.
- The animals come from a zone with 10 kms of radius around their premises of origin where the following diseases have not occurred before introduction of the imported animals to quarantine as referred to in point III below:  
4- الحيوانات واردة من منطقة بشعاع 10 كلم حول مرابط المنشأ وحيث أنه لم يسجل فيها أية حالة مرضية قبل الدخول إلى المحجر الصحي البيطري، كما هو مبين في النقطة III أدناه وذلك:  
- FMD for at least 3 months منذ ثلاثة أشهر بالنسبة لمرض الحمى القلاعية؛  
- Rinderpest and PPR for at least 21 days. واحد وعشرون يوماً لمرض الطاعون البقري وطاعون المجترات الصغيرة.

II HERDS OF ORIGIN/ قطعان المنشأ

- The animals come from herds in which they have been kept since their birth or for at least 1 month before introduction in the quarantine station referred to in point III below, and in which no case of the following diseases have been reported:
- FMD - during the last 3 months ;
  - Rinderpest or PPR - during the last 21 days ;
  - CBPP and RVF- during the last 6 months ;
  - Tuberculosis, Brucellosis, Rabies or Anthrax - during the last 30 days.
- إن الحيوانات واردة من قطعان بقيت فيها منذ ولادتها أو لمدة شهر واحد على الأقل قبل إدخالها إلى محطة الحجر المذكورة في الفقرة ثلثاً أدناه، وحيث أنه لم يبلغ عن وقوع أية إصابة للأمراض التالية:
- الحمى القلاعية خلال الثلاثة أشهر الأخيرة،
  - طاعون الأبقار أو طاعون المجترات الصغيرة خلال الـ 21 يوماً الأخيرة،
  - ذات الرئة والجنث أو حمى وادي المتصدع خلال الستة أشهر الأخيرة،
  - السل أو البروسيللا أو داء الكلب أو الجمره الخبيثة خلال الثلاثين يوماً الأخيرة.



Regional Representation  
For the Middle East

## Conclusion

- These model certificates must be regularly updated.
  - according to the evolution of the sanitary situation;
  - according to the new recommendations of the OIE Terrestrial Animal Health Code.



# Acknowledgment

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