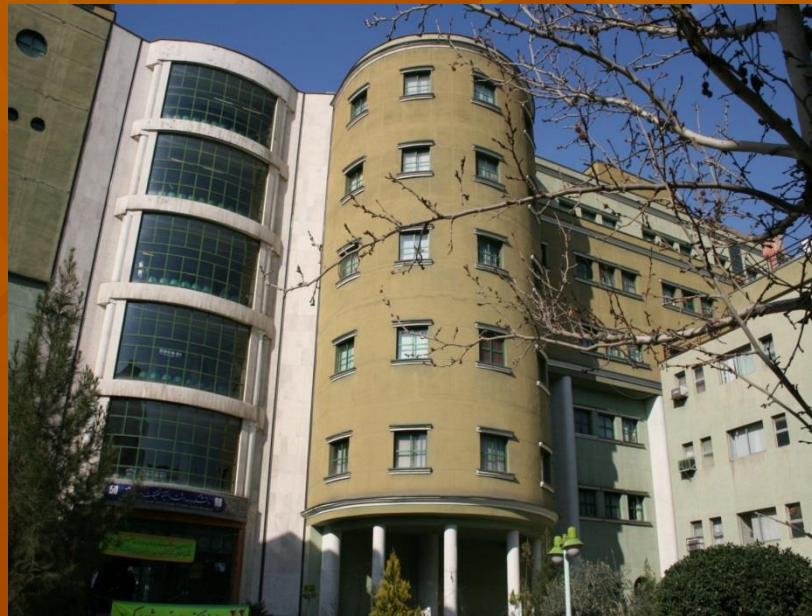




IN THE NAME OF ALLAH
THE COMPASSIONATE THE MERCIFUL



H. Vatandoost

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**Members of the Vector Control Advisory Group
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Prof. John Beier, USA



Prof. Thomas Burkot, Australia.



Professor Marc Coosemans, Belgium.



Dr John I. Githure, Rwanda.



Prof. Janet Hemingway, UK.



Prof. Immo Kleinschmidt, UK.



Dr Ashwani Kumar, India



Dr Kim A. Lindblade, USA.



Dr Steven W. Lindsay, UK.



Dr Roger Nasci, USA.



Thomas Scot, USA.



Prof. Hassan Vatandoost, Iran.



Dr Indra Vythilingam, Malaysia.



Tehran School of
Public Health



ICRC



Iranian
Red Crescent

فوریت‌های بهداشتی در جوامع بزرگ

تهران - ۶ - ۱۷ شهریور ۱۳۹۵ | Tehran, 27 August – 7 September 2016

H.E.L.P.

HEALTH EMERGENCIES IN LARGE POPULATIONS

A training course for the management of humanitarian assistance











landslide - رانش زمین



DAY 1

Avalanche - بهمن





Tornado - گردباد



آتشفشان-volcano





Tsunami - سونامی

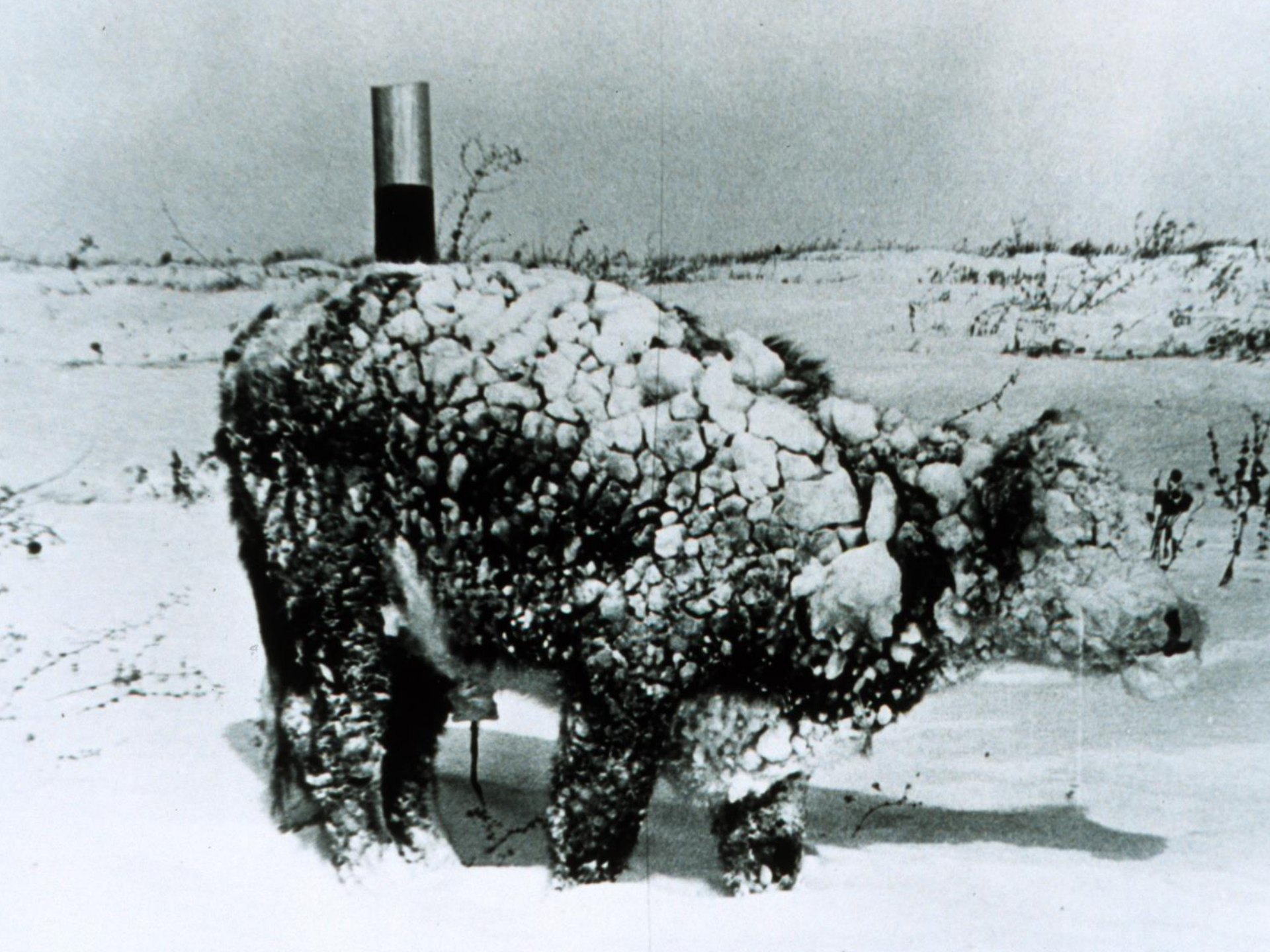






Blizzard - یخبندان





سيل-flooding







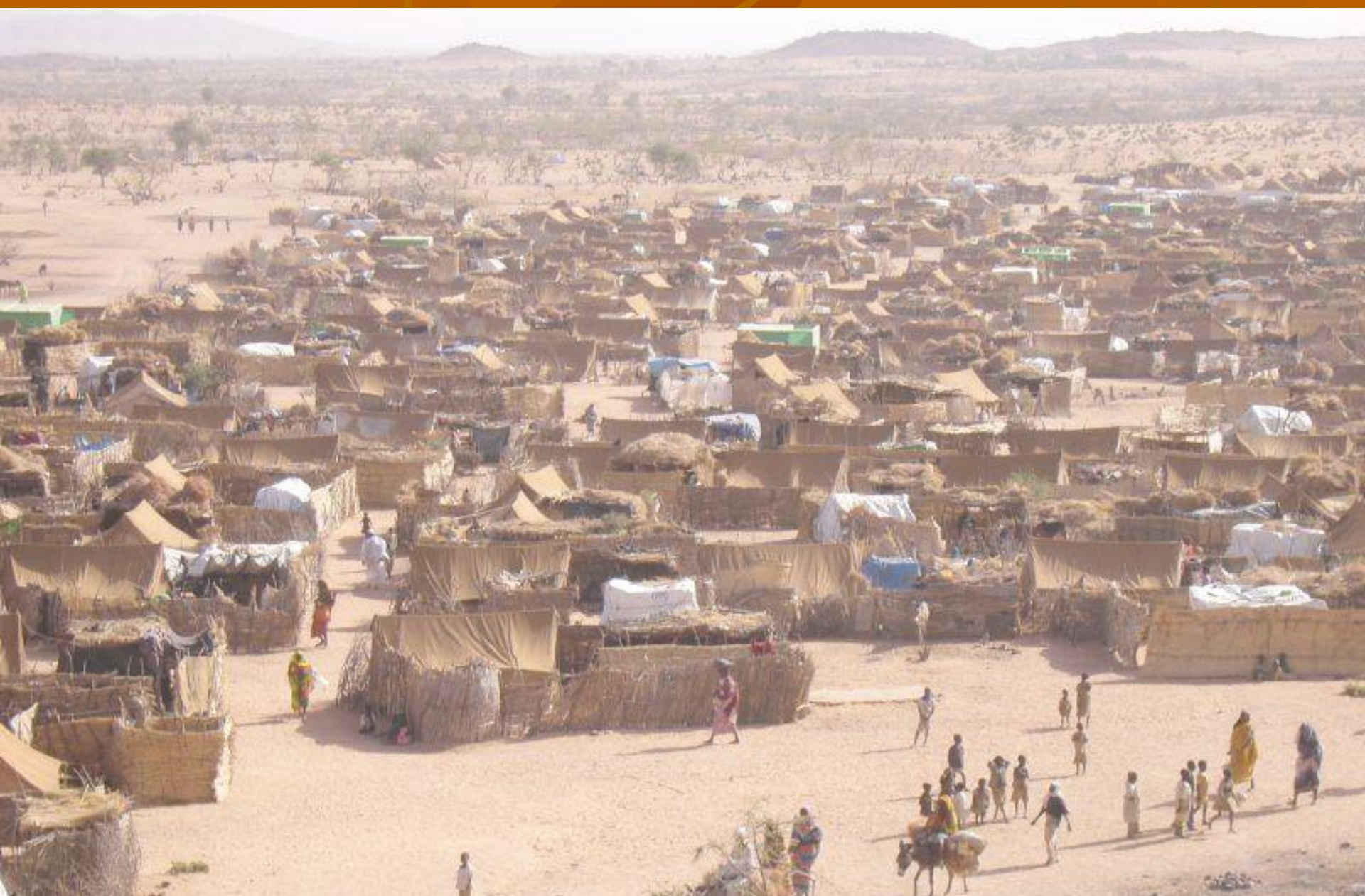




Hurricane - طوفان



Civil war - جنگهای داخلی







زلزلہ-Earthquake











lightning - صاعقه



wildfire-آتش سوزی







خشکسالی - drought







Heat-گرما



Management of Public Health Pesticides

Dr. H. Vatandoost

School of Public Health & Institute
of Health Research

Tehran University of Medical
Sciences

Important diseases and pests

Malaria

Leishmaniasis

Trypanosomiasis

Onchocerciasis

Dengue fever

Yellow fever

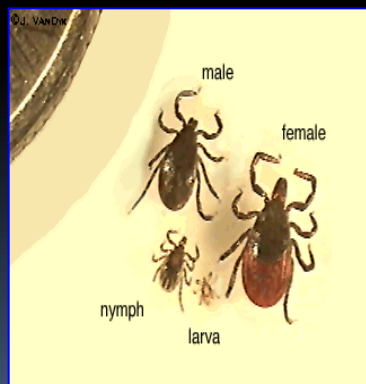
Arboviruses

Nuisance Insects and pests

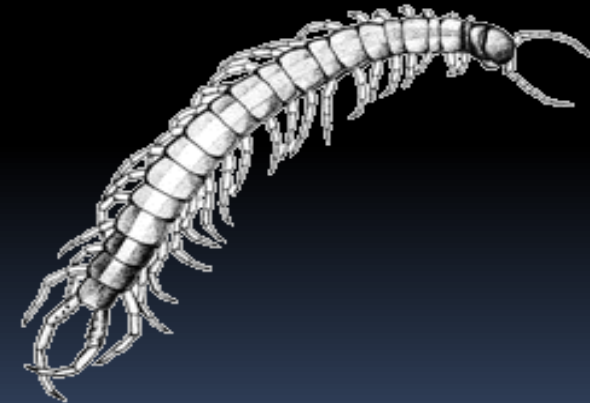
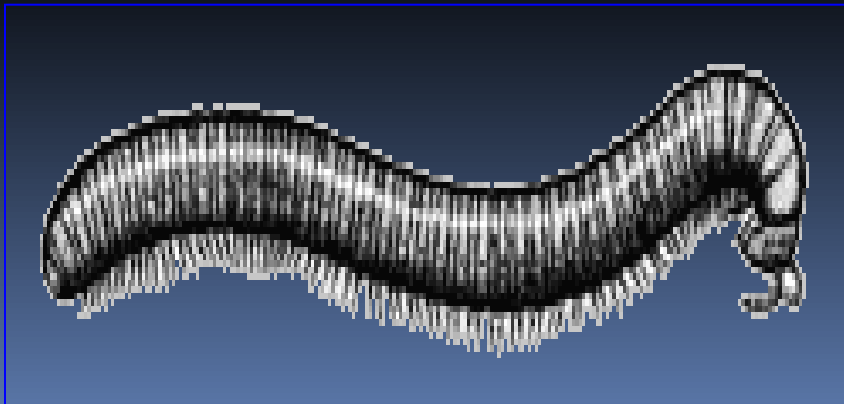
Rodents



Anopheles Stephens, uno dei vettori della malaria











Countries and territories affected by malaria, 2010



not imply the expression of any opinion whatsoever
country, territory, city or area or of its authorities,
and represent approximate border lines for which

Data Source: World Health Organization
Map Production: Public Health Information
and Geographic Information Systems (PHGIS)
World Health Organization



World Health
Organization

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Questions

- ① How much water per day?
- ② Location of site?
- ③ Location of site?
- ④ Location of site?
- ⑤ Location of site?

EVACUATION SITE

For 10,000 people
2,000 cattle



Minimum

- 25 people/stand x 6 stands/stand
≈ 7 stands
500 Tickets









Policy Vector Control Natural Disasters and Climate Change











Global map of vector-borne diseases















سمپاشی ابقائی

راهنمای عملیاتی سمپاشی ابقائی
برای کنترل و حذف مالاریا



دکتر حسن
یاسر سلیم آبادی
علیرضا سامعی دهکردی
دو استاد از تهران
دکتر حسن وطن دوست
دکتر احمد زبسی

Indoor Residual Spraying (IRS)

An operational manual for Indoor Residual
Spraying (IRS) for malaria transmission
control and elimination



Thomas
Vuong
Alberto
Enrique
Dr. Alvaro



سازمان جهانی بهداشت
برنامه جهانی مالاریا



World Health
Organization
Global Malaria Programme



Pesticides that registered and used in Iran





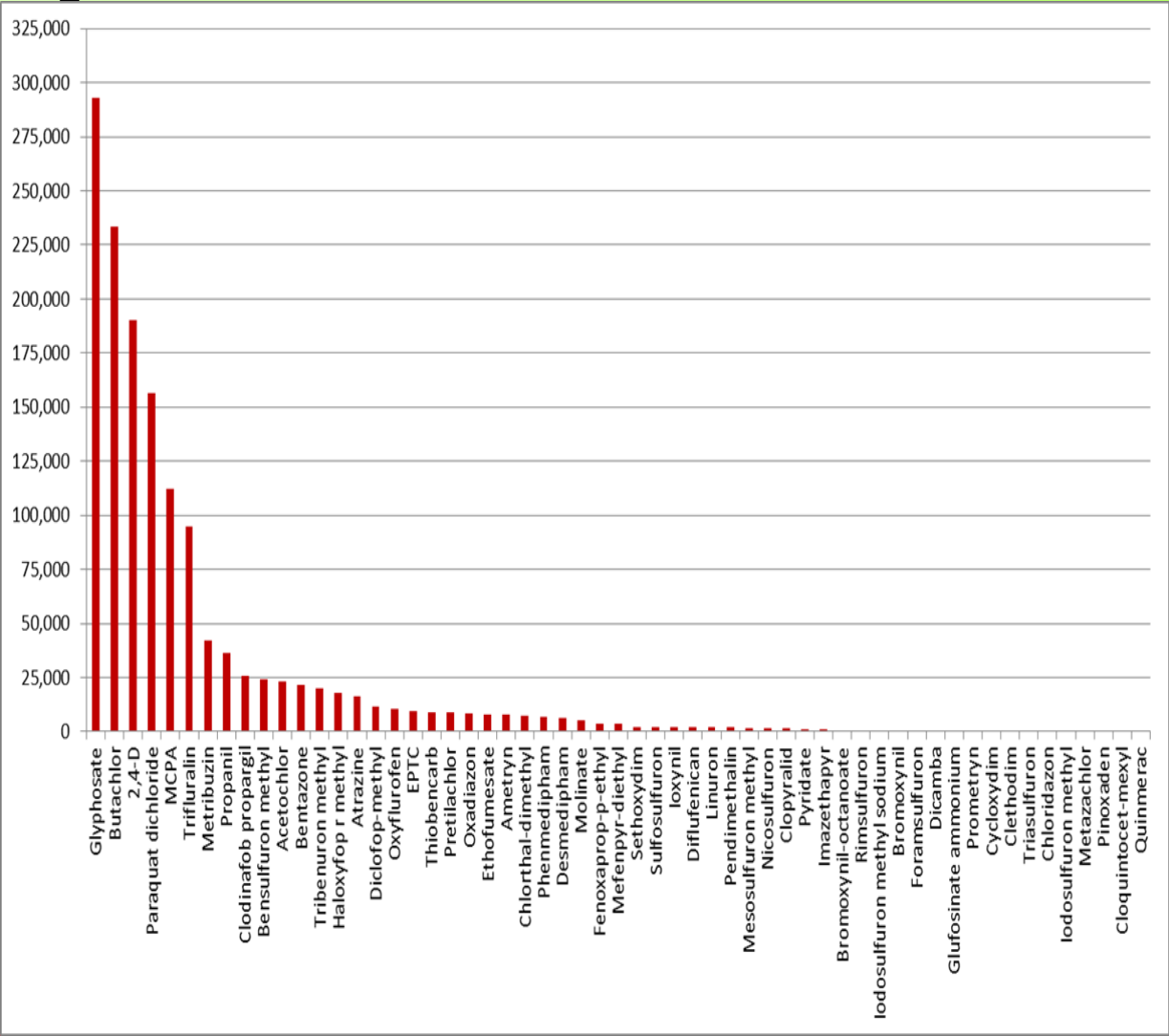




Distribution of pesticides in Iran (kg of active substance)

	Herbicide		Fungicides		Insecticide	
1	Glyphosate		Mancozeb		Diazinon	
2	Butachlor		Carbendazim		Chlorpyrifos	
3	2,4-D		Benomyle		Imidacloprid	
4	Paraquat		Iprodione		Ethion	
5	MCPA		Captan		Cypermethrin	
6	Trifluralin		Copper		Fenitrothion	
7	Metribuzin		Thiophanate		Propargite	
8	Propanil		Propiconazole		Malation	
9	Clodinafob		Tricyclazole		Profenofos	
10	Bensulfuron		Chlorothalonil		Fenvalerate	
11	Acetochlor		Tebuconazole		Thiondicarb	
12	Bentazone		Triemorph		Dimethoate	
13	Tribenuron		Propamocarb		Bromopropylate	
14	Haloxifob		Sulphur		Phosalone	
15	Atrazin		Dodine		Acetamipride	

The distribution of **Herbicide** in Iran in terms of active ingredient



Results Chart



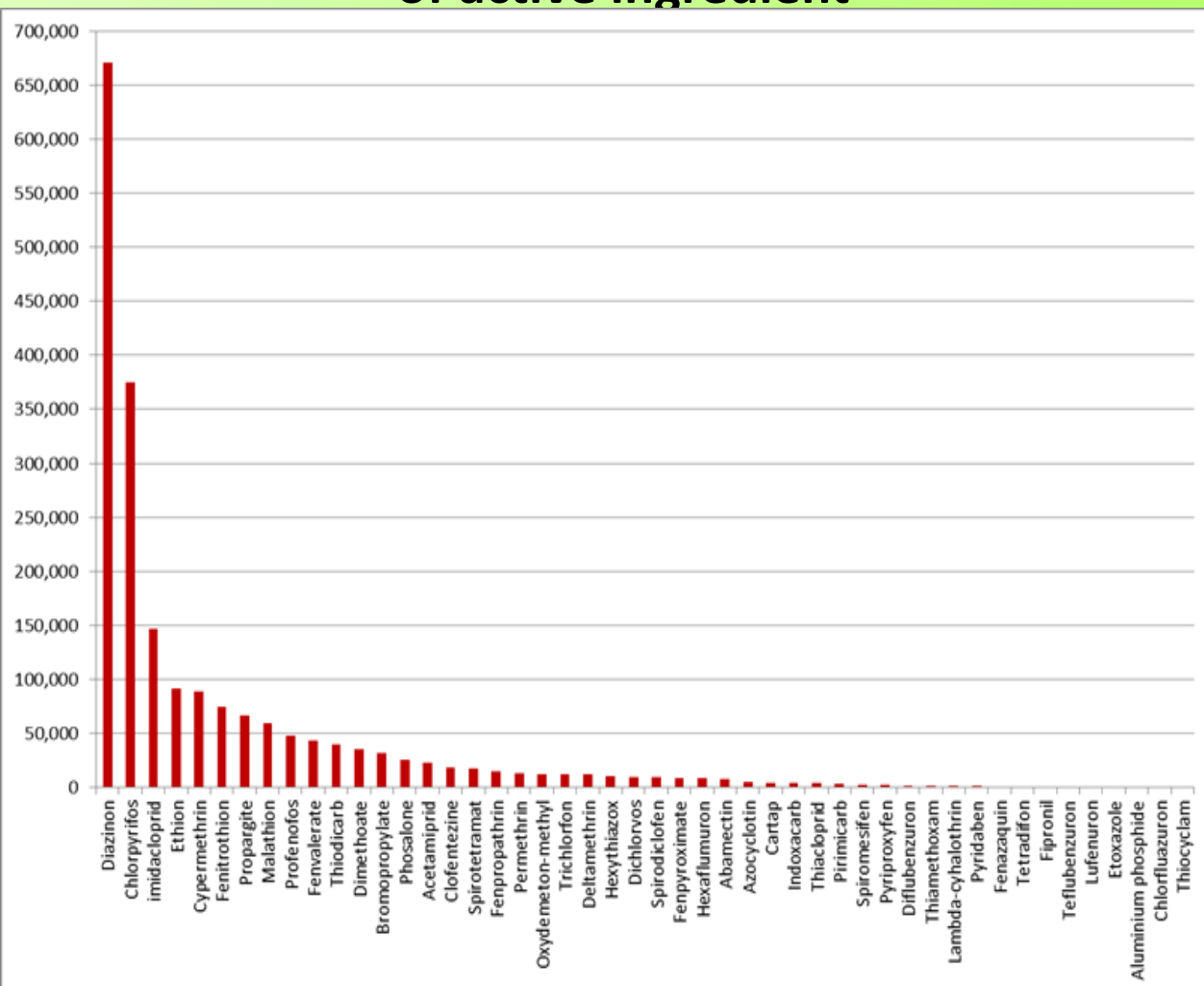
Most **herbicides** used in Iran include:

1. Glyphosate
2. Butachlor
3. 2,4-D
4. Paraquat
5. MCPA

The most used **herbicide** (carcinogen) in Iran:

1. **Molinate** (Khuzestan, Azarbaijan East, Esfahan)
2. **Linuron** (Esfahan, Tehran, Khuzestan)
3. **Metazachlor** (Khorasan north)

The distribution of **Insecticide** in Iran in terms of active ingredient



Results Chart



Most Insecticide used in Iran include:

1. Diazinon
2. Chlorpyrifos
3. Imidacloprid
4. Ethion
5. Cypermethrin

The most used **Insecticide (carcinogen) in Iran:**

1. propargite(Esfahan, Khorasan razavi, Bandar abbas)

The distribution of **Fungicides** in Iran in terms of active ingredient

Results Chart

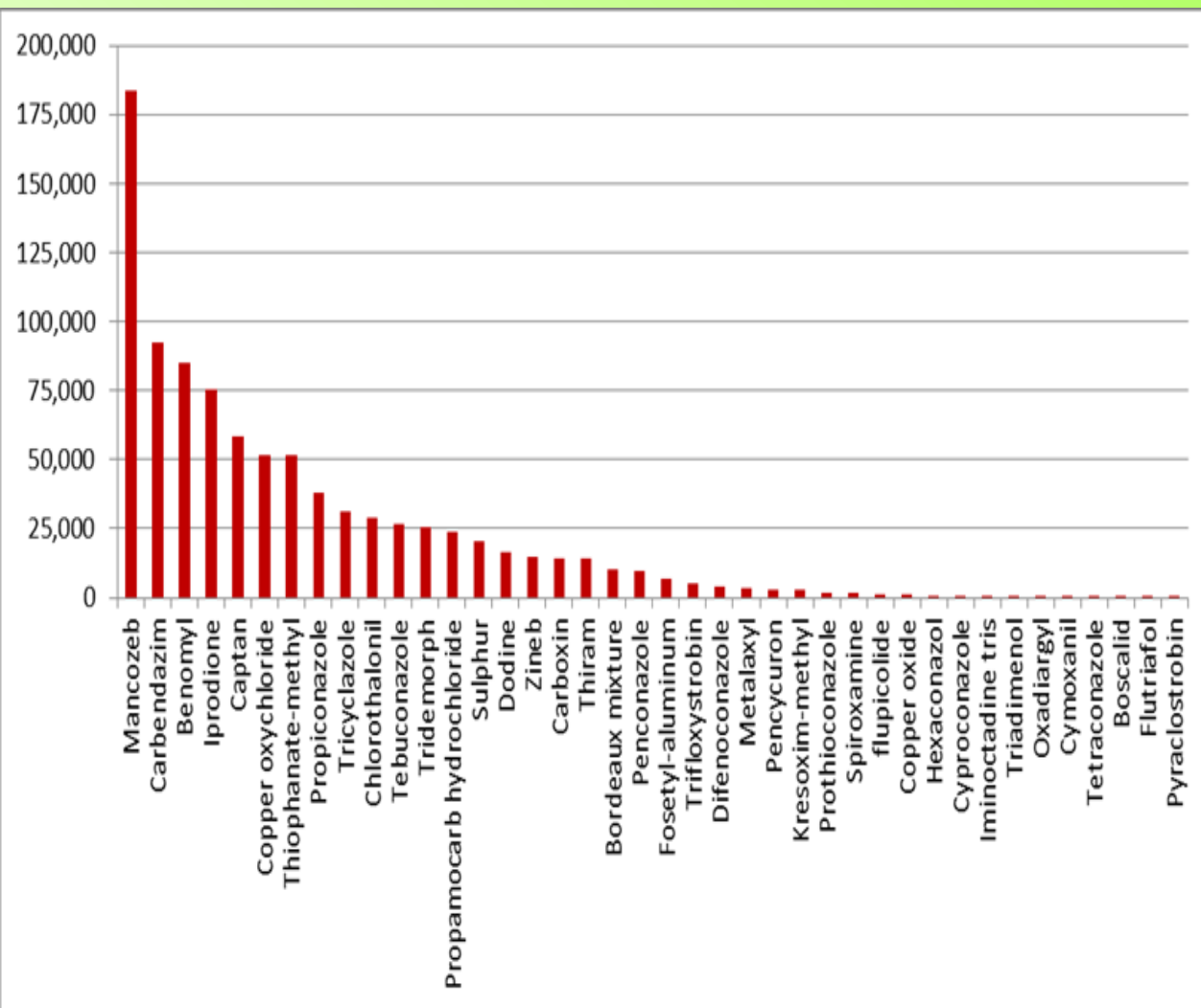


Most **Fungicides** used in Iran include:

1. Mancozeb
2. Carbendazim
3. Benomyl
4. Iprodione
5. Captan

The most used **Fungicides** (carcinogen) in Iran:

1. Iprodione (All provinces)
2. Captan (Tehran, Khorasan razavi, Mazandaran)
3. Chlorothalonil (All provinces)
4. Kresoxim- methyle (Esfahan, Khozestan, Azarbaijan west)



The distribution of pesticides in different provinces of Iran in 2005-2017

Insecticide and Acaricide

Herbicide

Fungicides



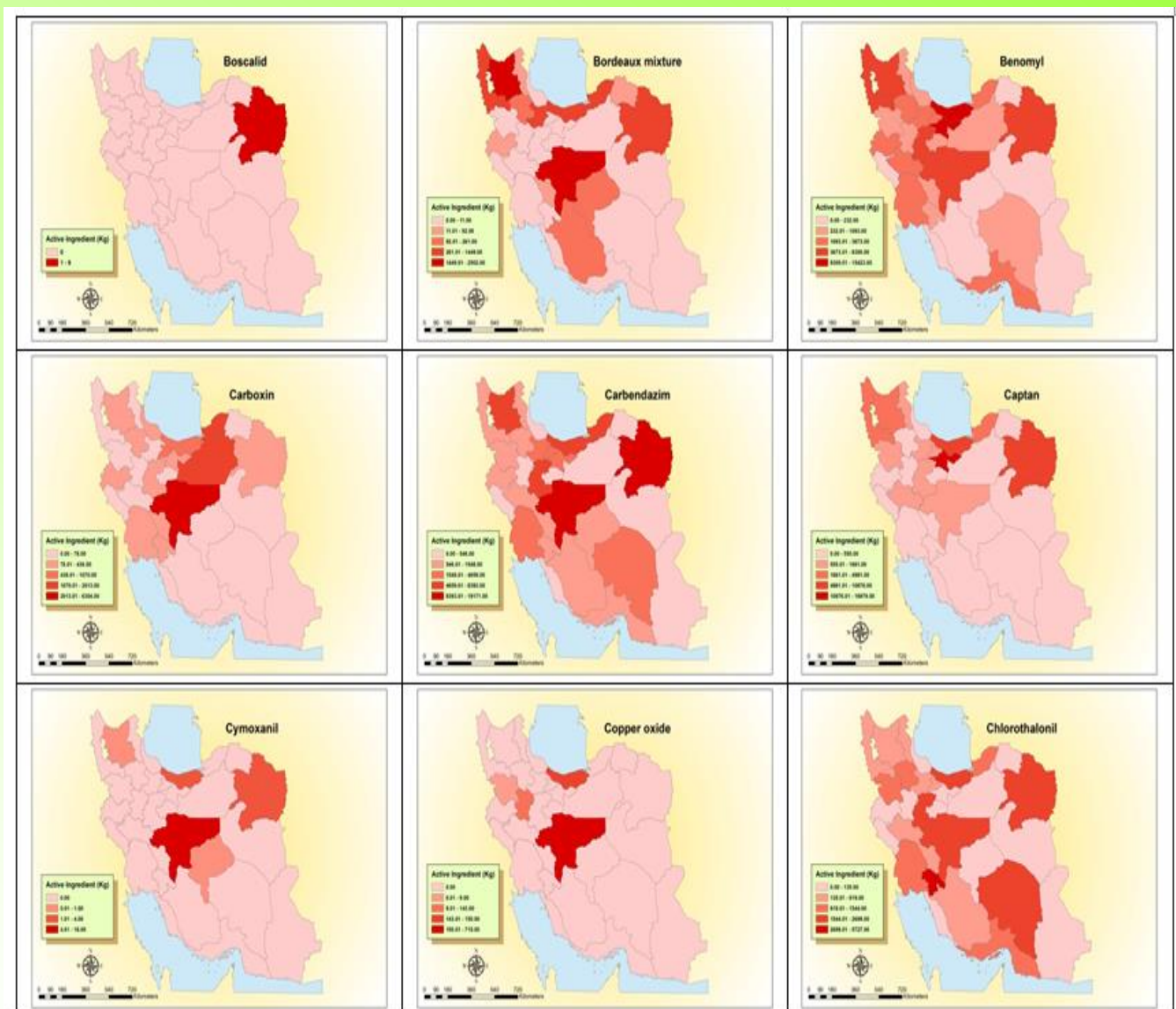
All Fungicides

Active Ingredient (Kg)



0 90 180 360 540 720
Kilometers

Distribution of fungicides in Iran in terms of active ingredient



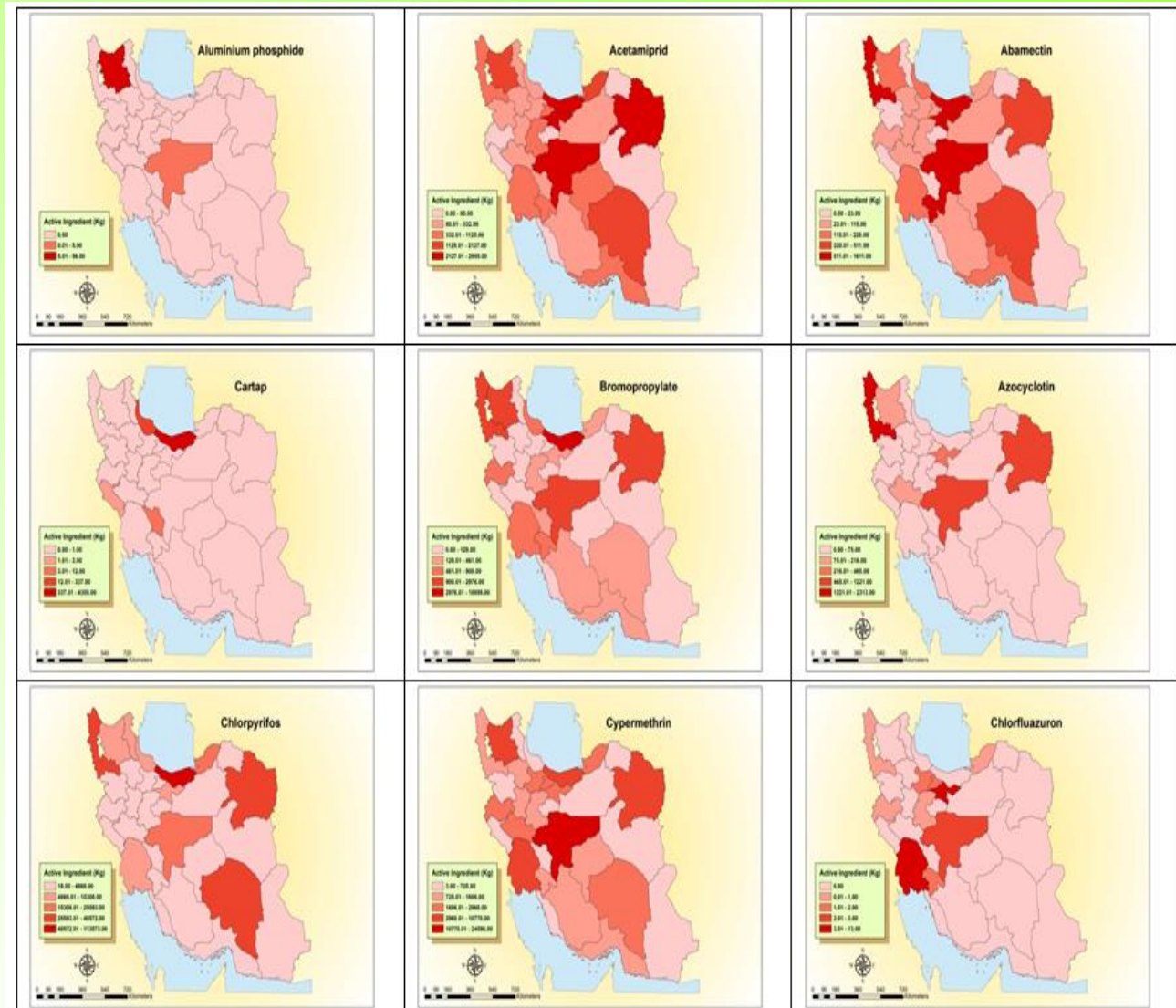
All Insecticides

Active Ingredient (Kg)



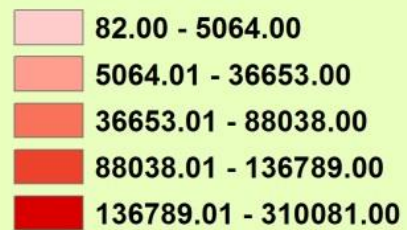
0 90 180 360 540 720

Distribution of Insecticides in Iran in terms of active ingredient

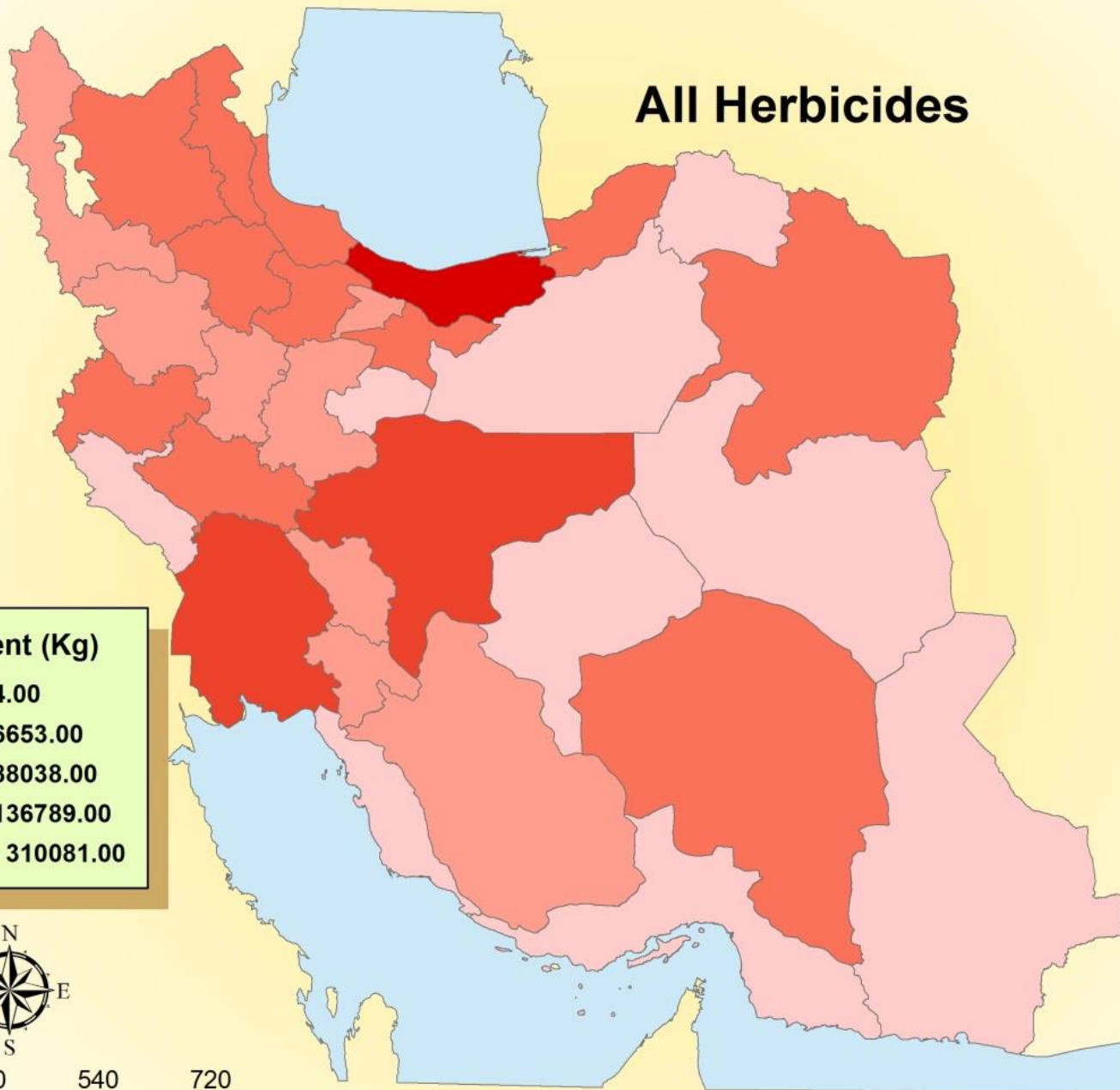


All Herbicides

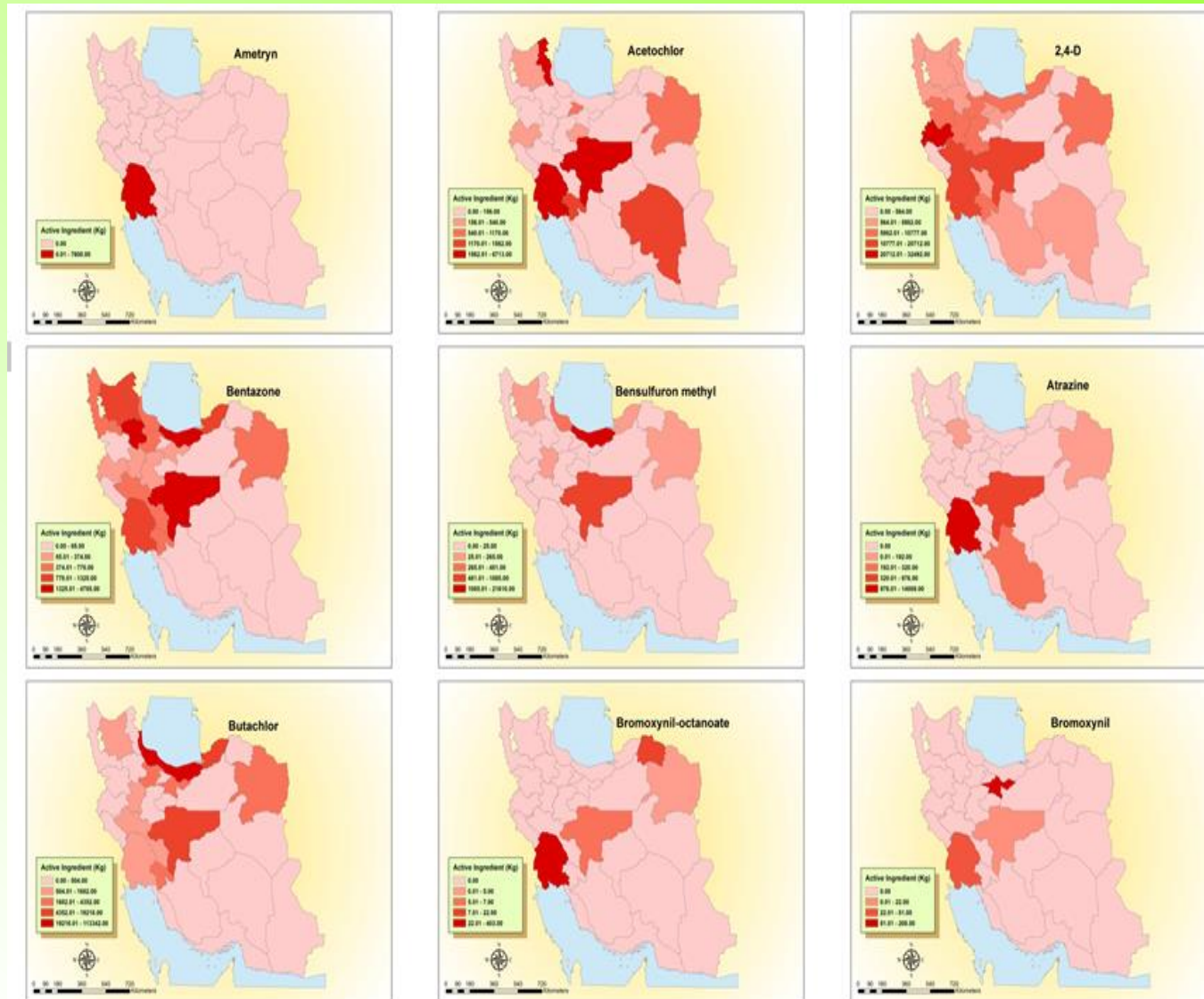
Active Ingredient (Kg)



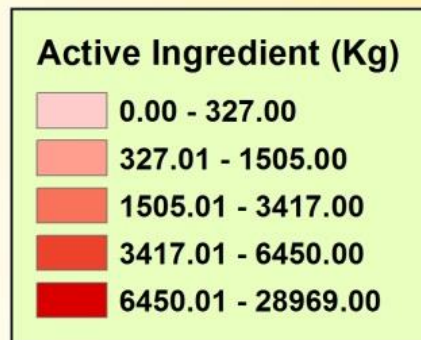
0 90 180 360 540 720 Kilometers



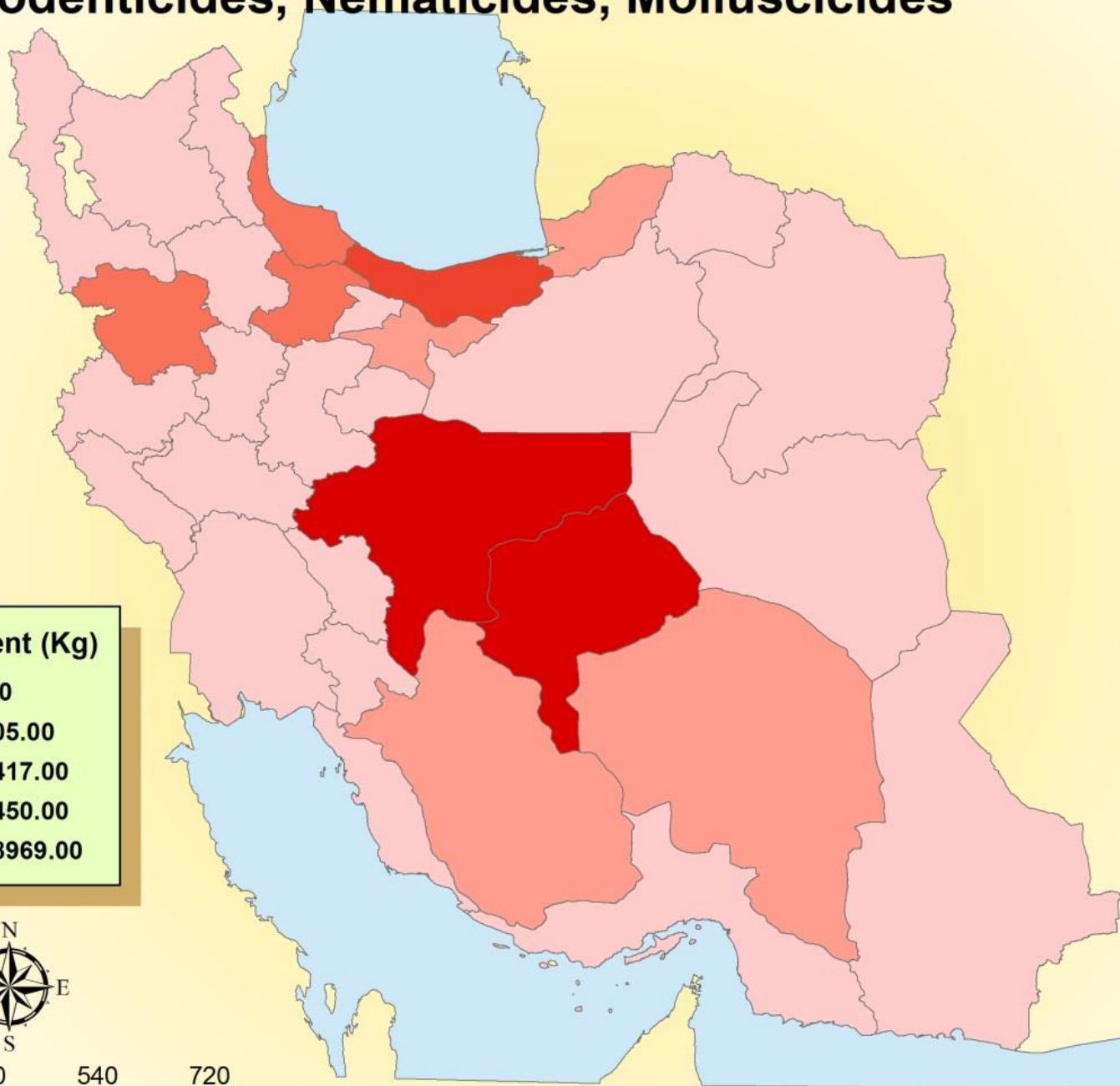
Distribution of Herbicide in Iran in terms of active ingredient



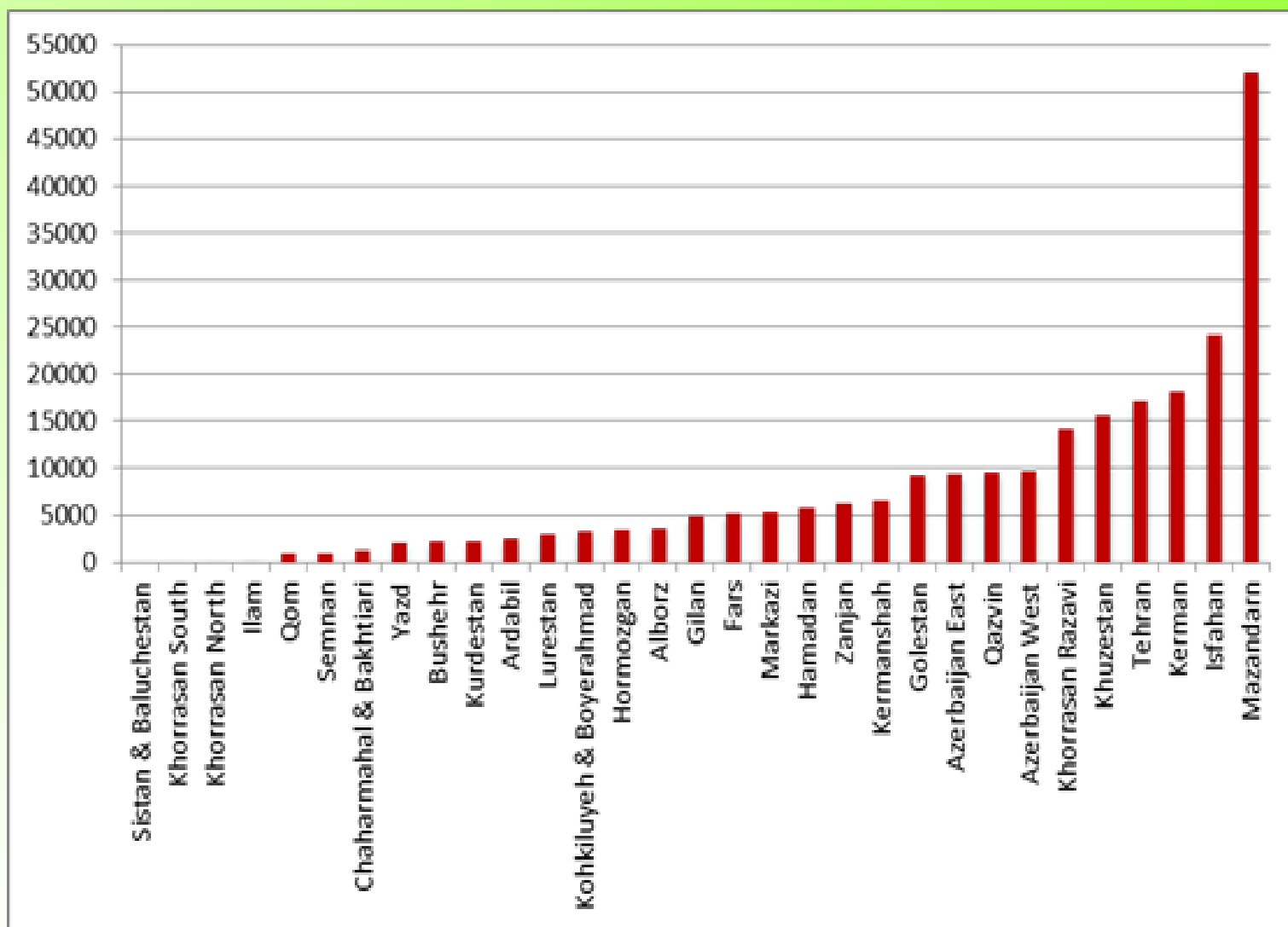
Rodenticides, Nematicides, Molluscicides



0 90 180 360 540 720 Kilometers



Chemical pesticides distributed in the provinces of the country



Average, crude incidence rate and standardized age incidence rate (per 100,000) 12 common cancers in the entire population between 2012-2017

Organ	mean	Crude	ASR
Breast	12802	33.26	32.63
Prostate	6155	15.76	18.69
Skin	10413	13.43	14.84
Stomach	9786	12.62	13.80
Colorectal	9636	12.43	13.43
Trachea	6007	7.75	8.52
Other	5677	7.32	7.77
Bladder	5662	7.30	8.05
Leukaemia	4752	6.13	6.70
Brain	4405	5.68	5.92
Thyroid	4139	5.34	4.80
Ovary	1851	4.81	4.88

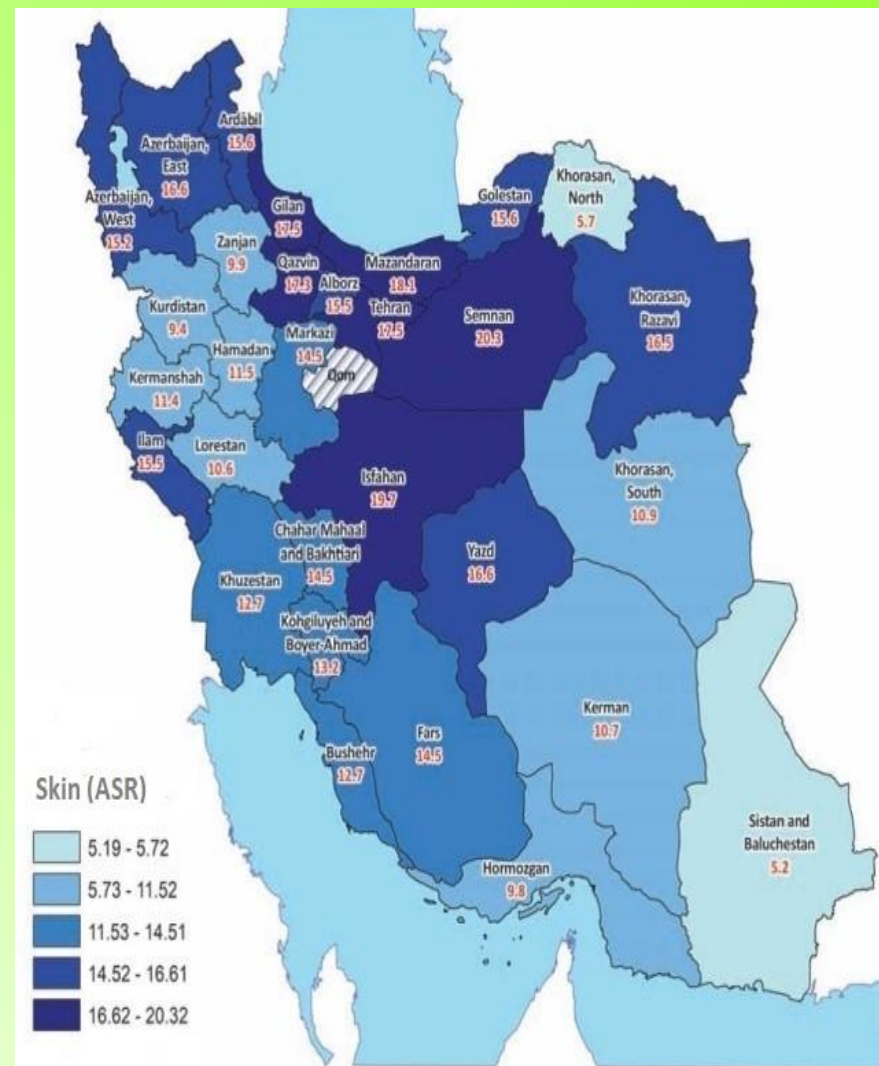
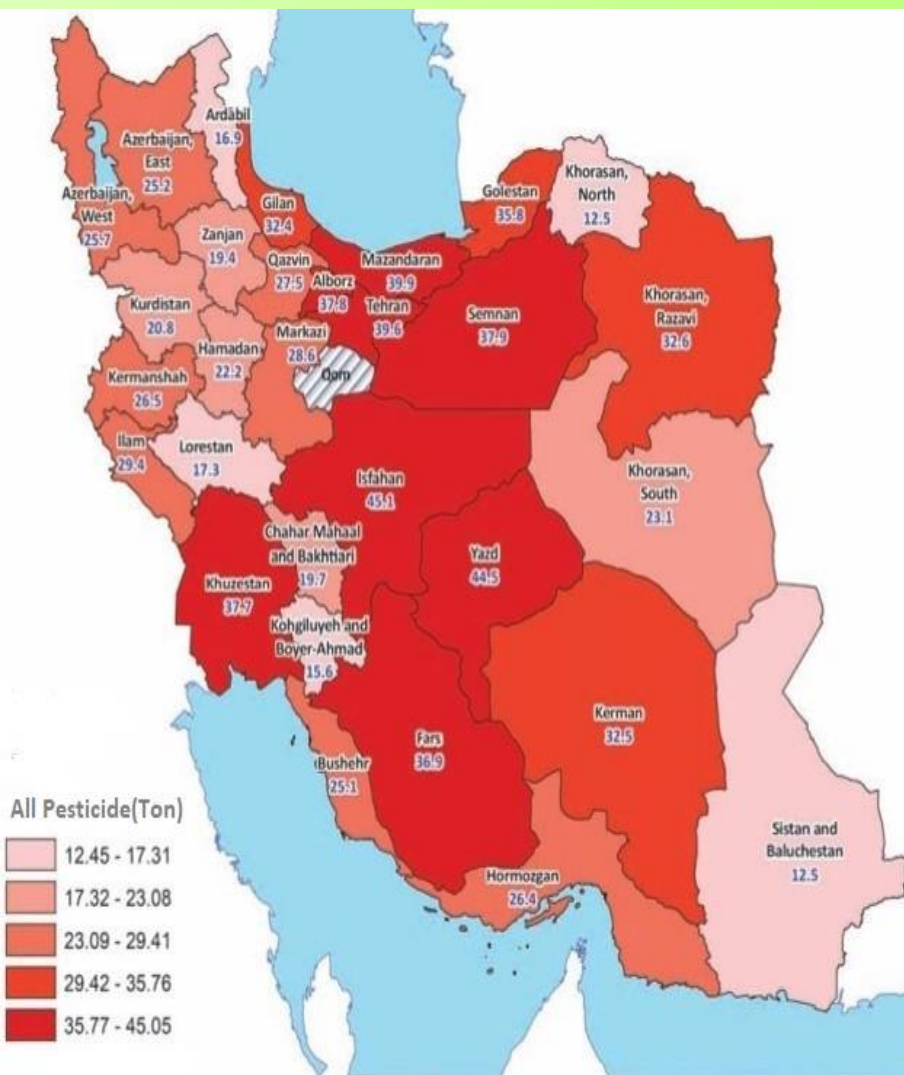
Results Table



The incidence of skin cancer and Trachea cancer is directly related to the person's contact with the chemicals.



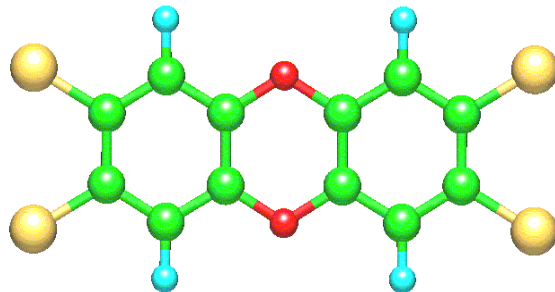
Distribution of Pesticide (Left Fig) and prevalence of Skin cancer (Right fig) in Iran 2012- 2017



9- Surveillance of pesticide poisoning

- Recording, collecting and analyzing the information on pesticide exposure and poisoning
- This enable Ministry for capacity building for diagnosis, treatment, preventive measure and management of pesticides

Dioxin



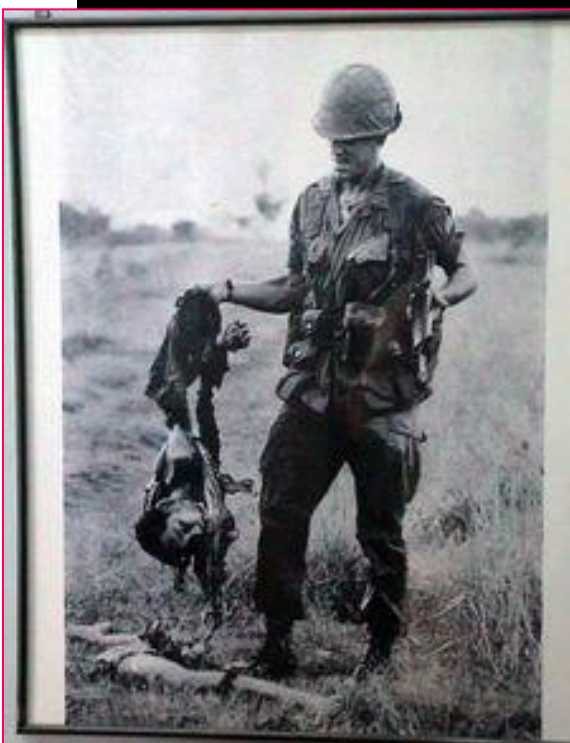
Adverse use of Pesticides and their diseases in humans



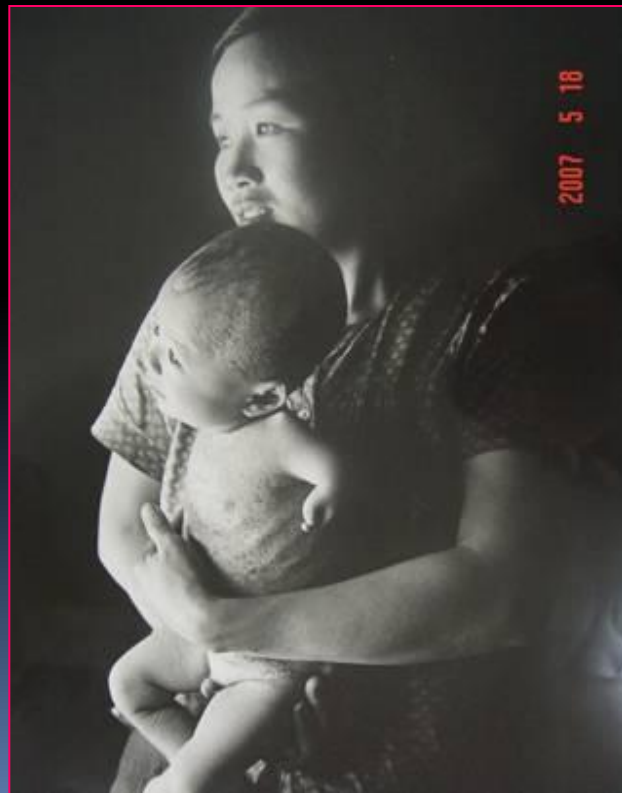
Side effect of Endosulfan in India



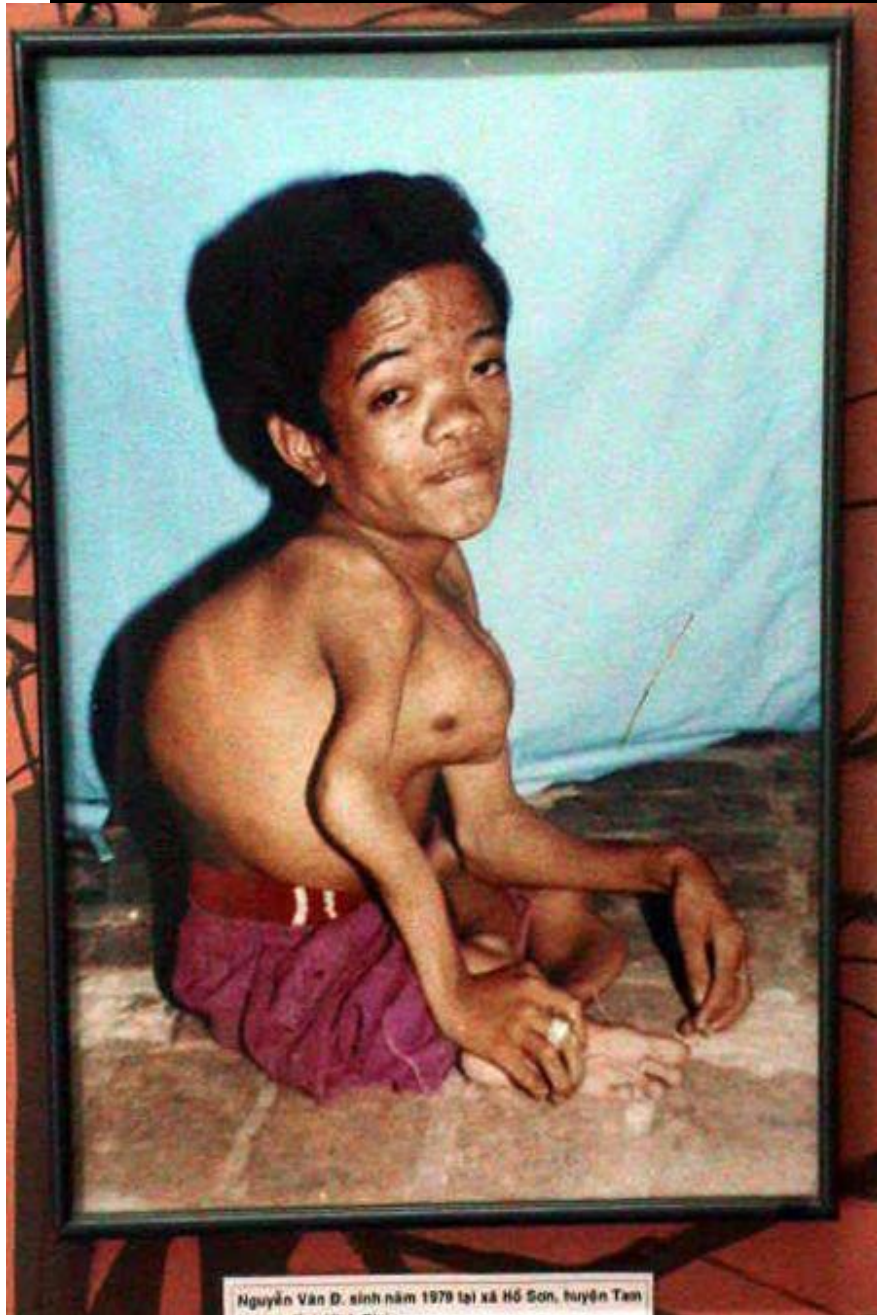




Agent Orange đã được phun rải hàng triệu lít ở Việt Nam, gây ra hàng triệu người tàn tật và chết.



Dioxin poisoning



Dioxin poisoning



راهنمای حفاظت فردی به هنگام استفاده از آفت‌کش‌ها

مترجمین: دکتر مرتضی (عیم) مهندس سید بهزاد موسوی، دکتر فاطمه نیکپور، دکتر حسن وطن دوست



راهنمای مدیریت آفت کش های خانگی

مترجمین: دکتر مرتضی زعیم، مهندس سید بهرام موسوی، دکتر فاطمه نیک پور، دکتر حسن وطن دوست



پژوهشگاه علوم پایه
دانشگاه تهران



معاونت بهداشت

راهنمای بازرسی تولید کنندگان، وارد کنندگان، توزیع کنندگان و فروشگاه های آفت کش ها

مترجمین: دکتر مرتضی زعیم، مهندس سید بهرام موسوی، دکتر فاطمه تنیک پور، دکتر حسن وطن دوست



سموم ثبت شده در سازمان غذا و دارو

Pyrethroids

1. Cyfluthrin
2. Cypermethrin
3. Deltamethrin
4. Allethrin
5. Bioallehtrin
6. Lambdacyhalothrin
7. Diphenothrin
8. Fenvalerate
9. Esfenvalerate
10. Tetramethrin
11. Pyrethrum

Organophosphate

1. Chlorpyrifos
2. Pirimiphos-methyl
3. Fenitrothion

Carbamate

1. Propoxur
2. Methyl-carbamate
3. Bendiocarb
4. Dimethoate

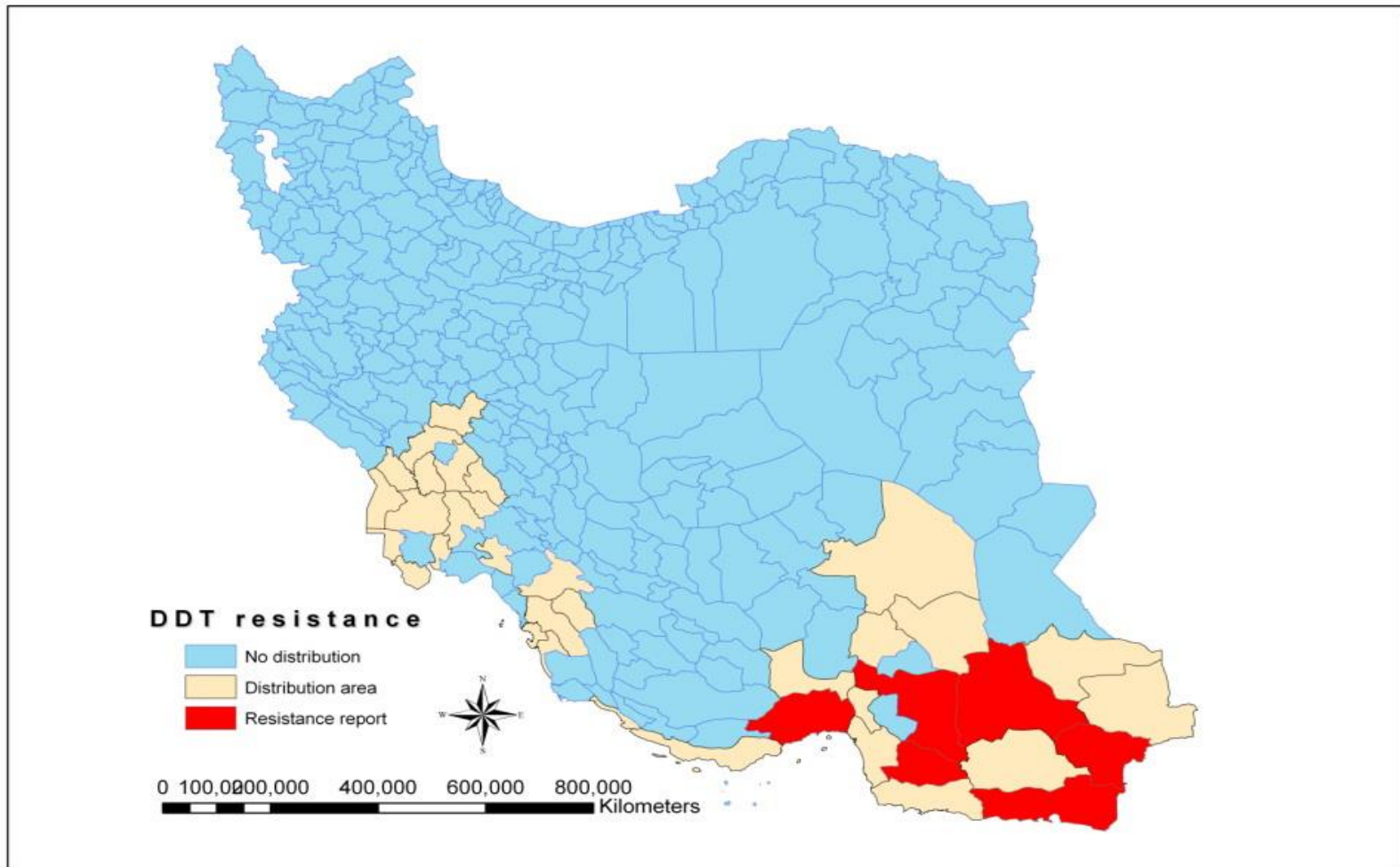
Synergist

1. Piperonyl butoxide

New pesticides

1. Fipronil
2. Imidochlopride

■ Distribution map of *Anopheles stephensi* in Iran with its spatial resistance to DDT, 1999-2020

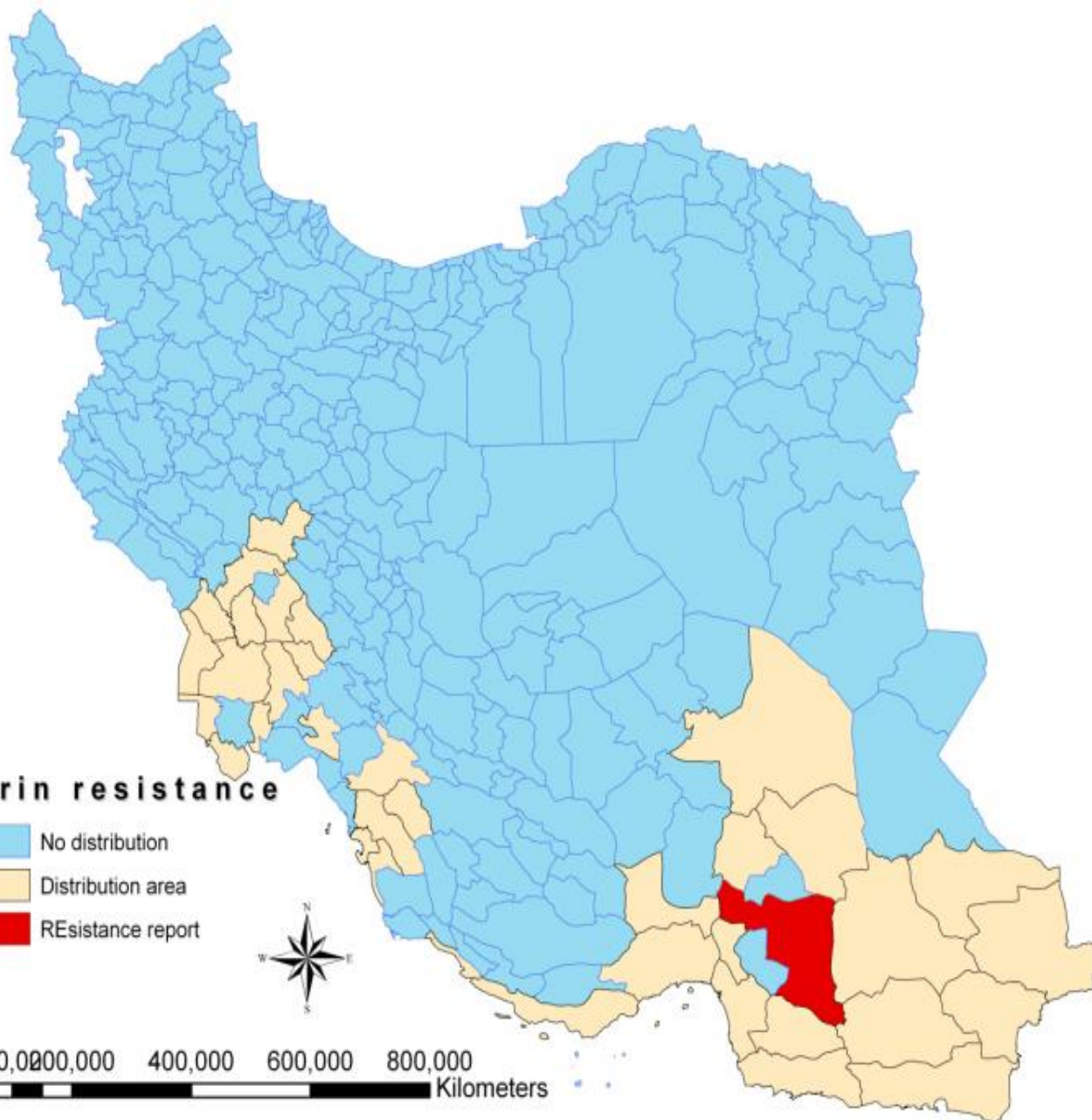


Dieldrin resistance

- No distribution
- Distribution area
- REsistance report



0 100,000,000 400,000 600,000 800,000
Kilometers

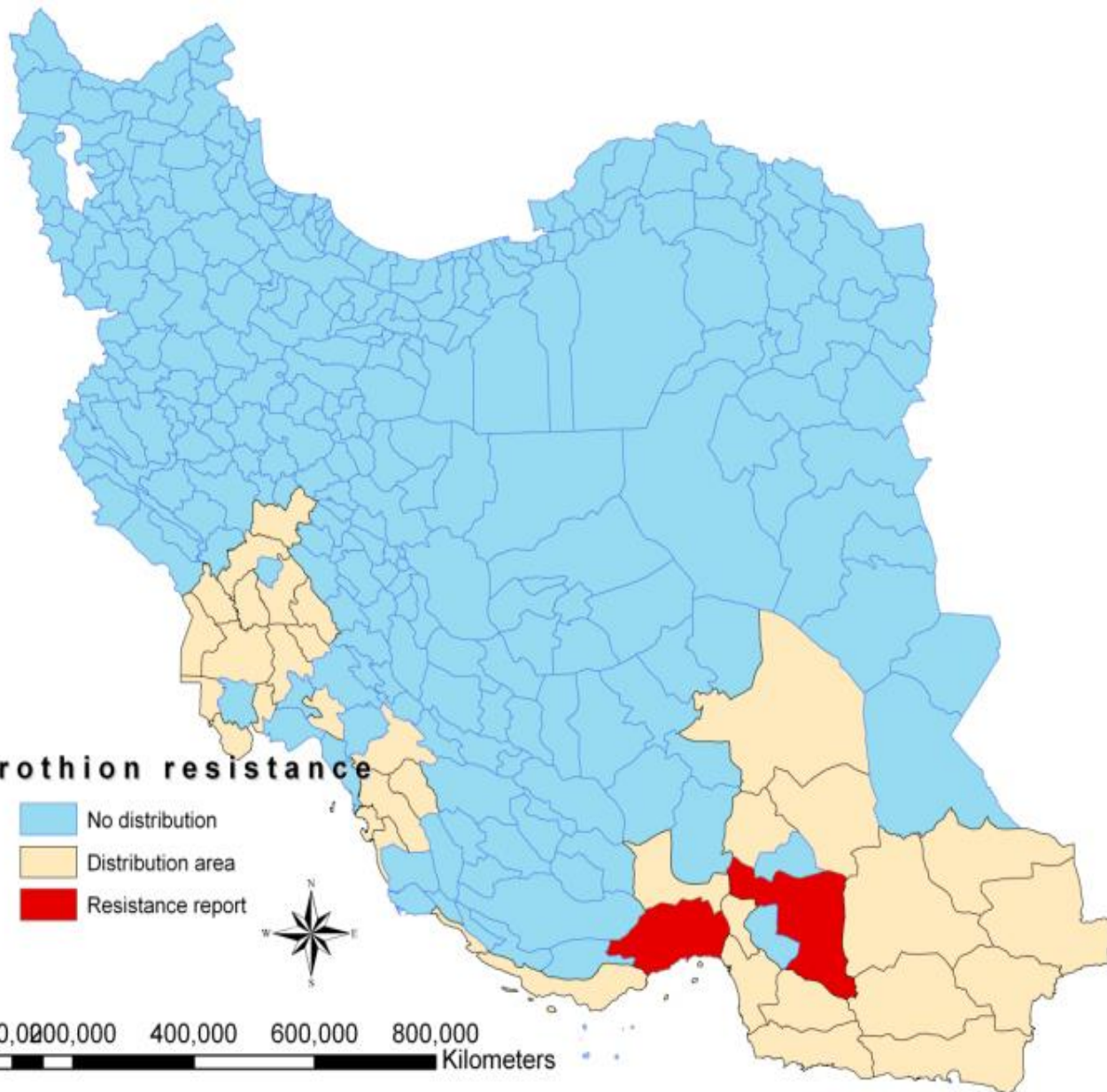


Fenitrothion resistance

-  No distribution
-  Distribution area
-  Resistance report



0 100,000,000 400,000 600,000 800,000
Kilometers

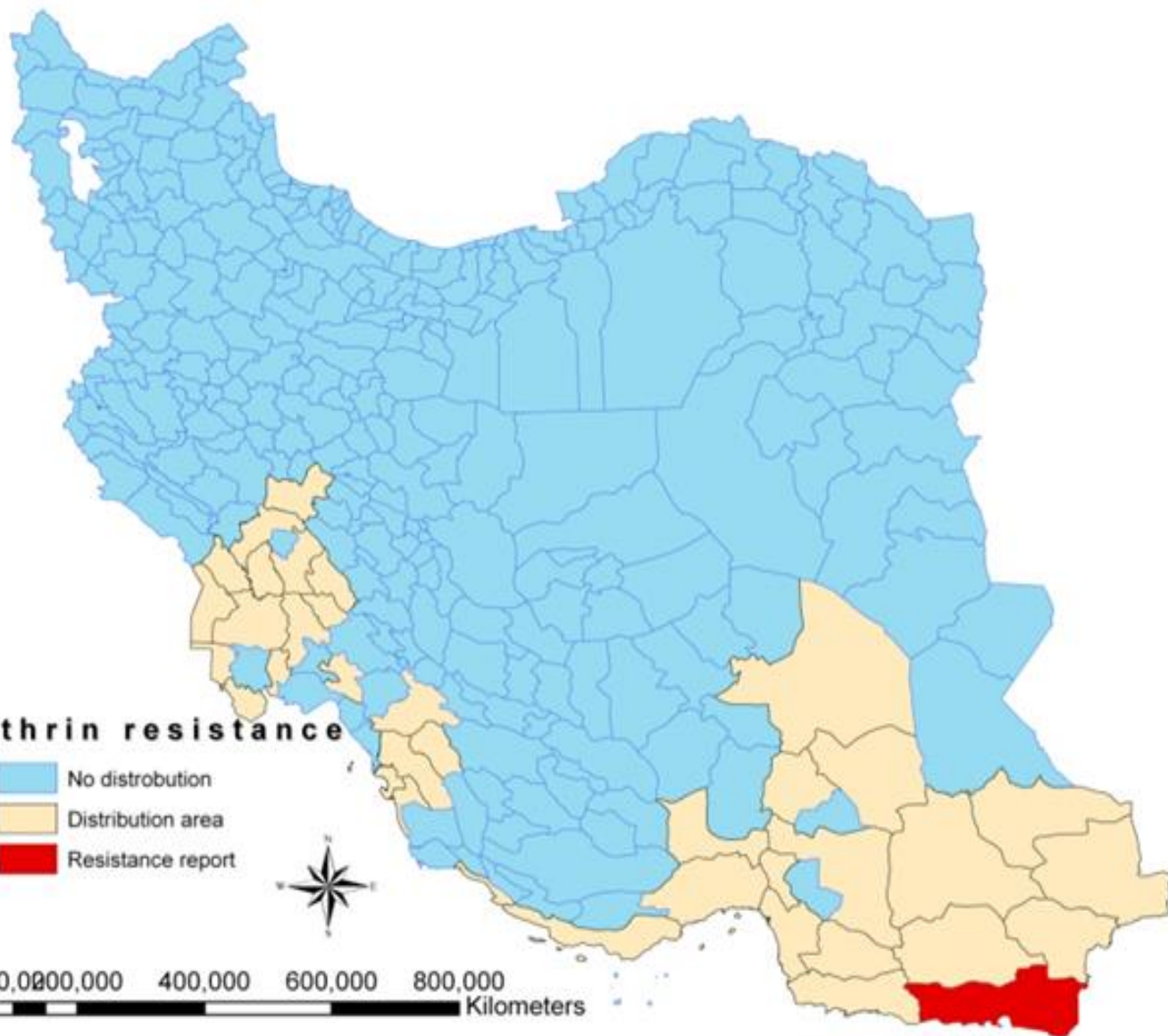


Cyfluthrin resistance

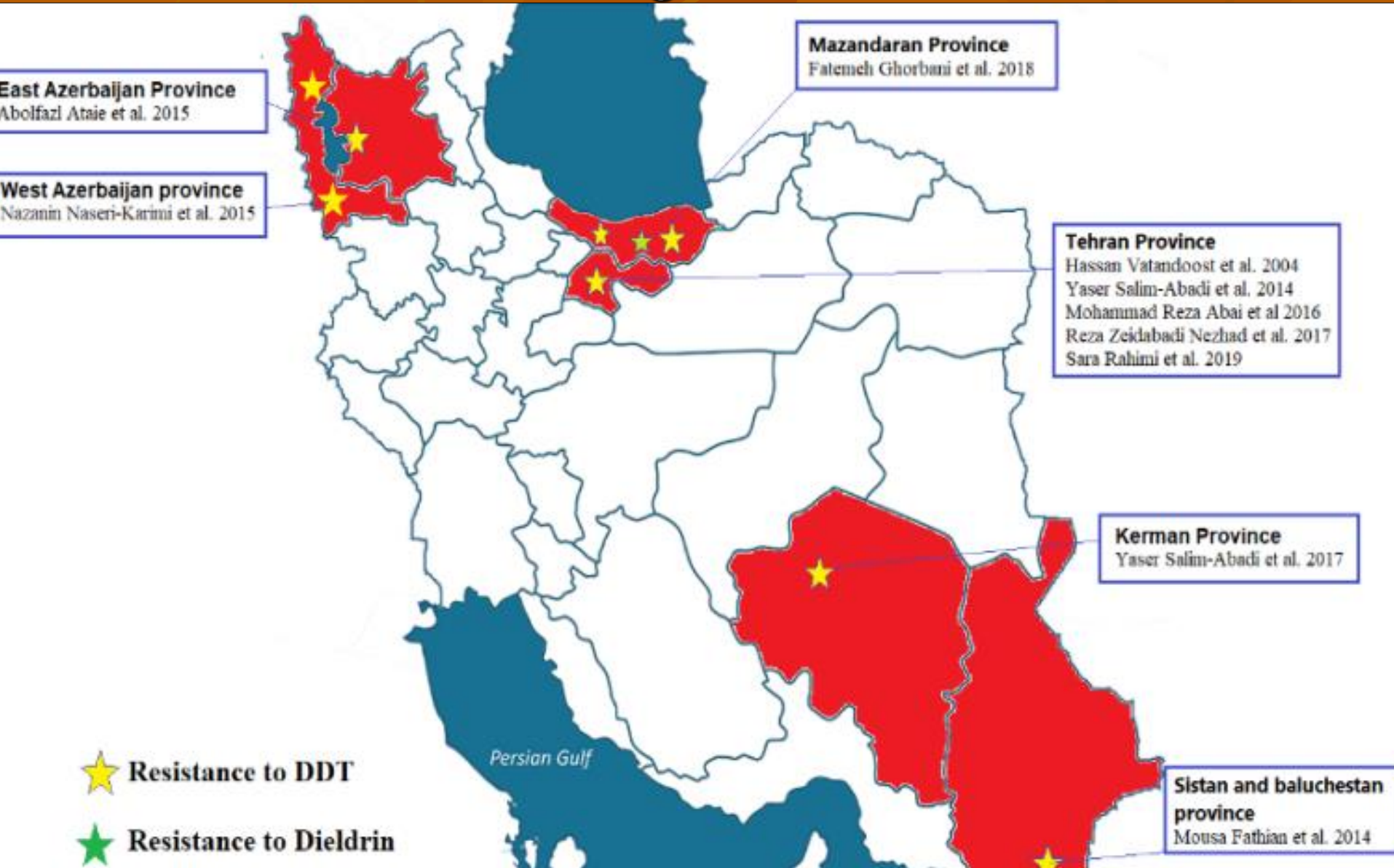
- No distrobution
- Distribution area
- Resistance report

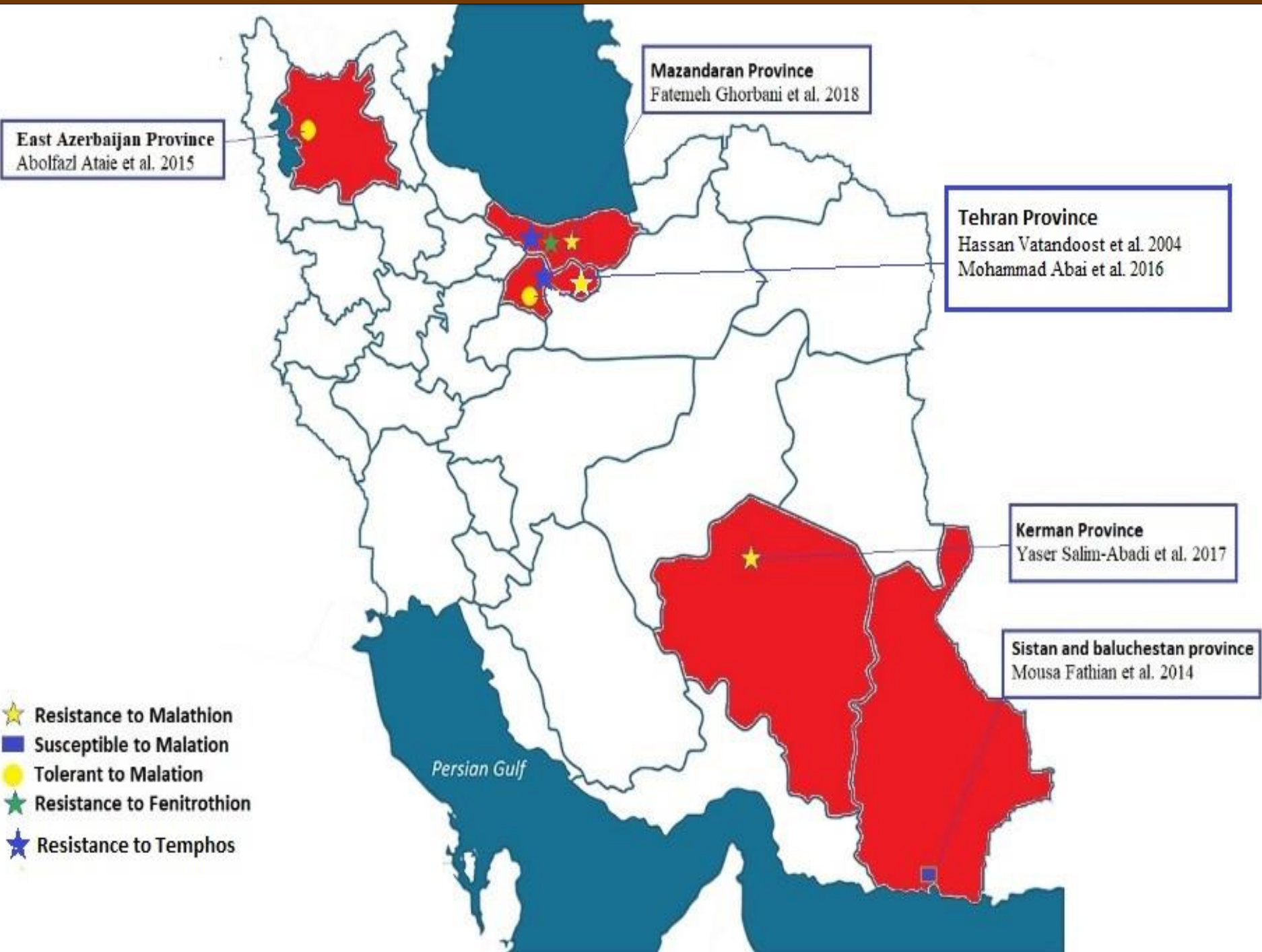


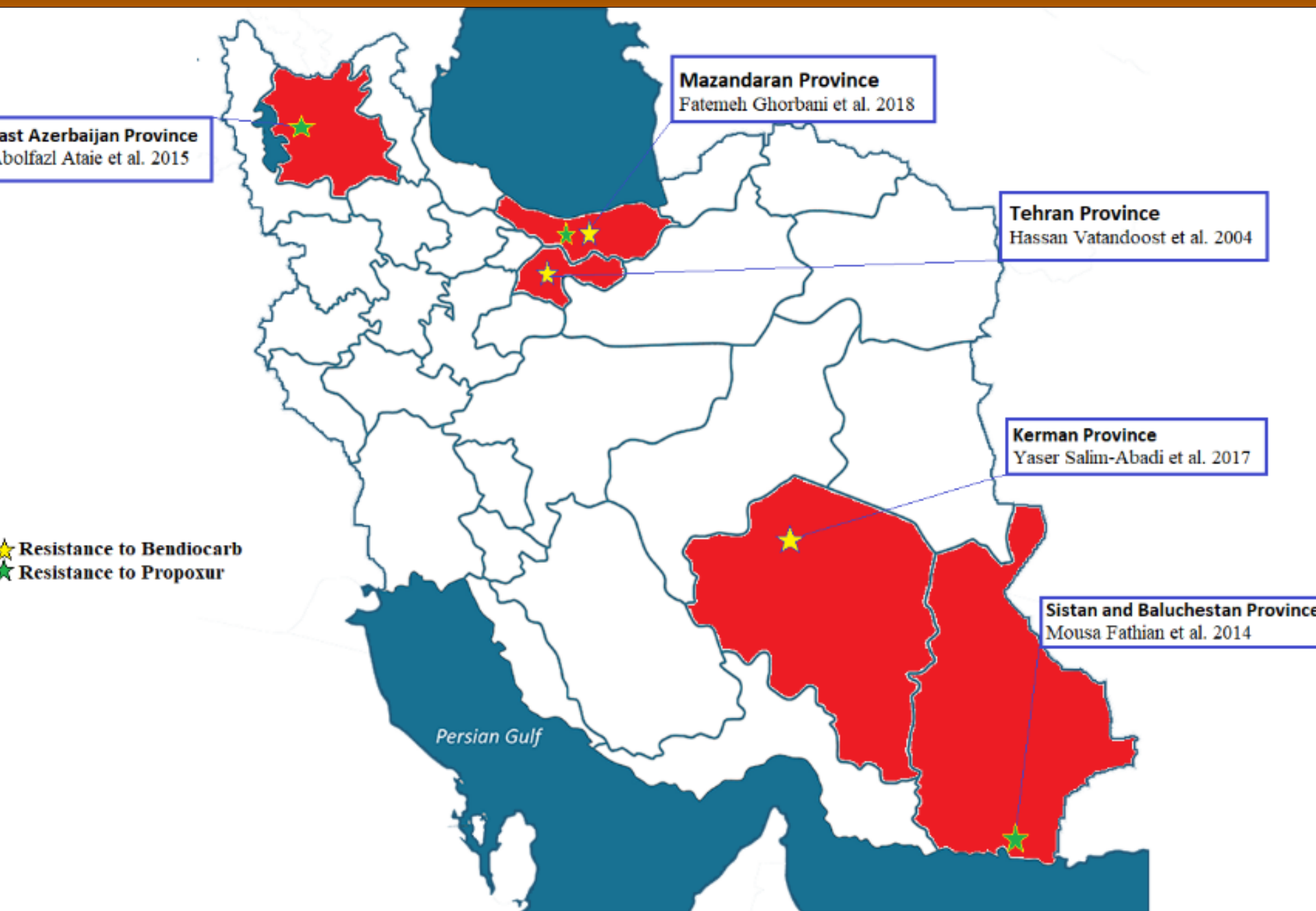
0 100,000 200,000 400,000 600,000 800,000 Kilometers

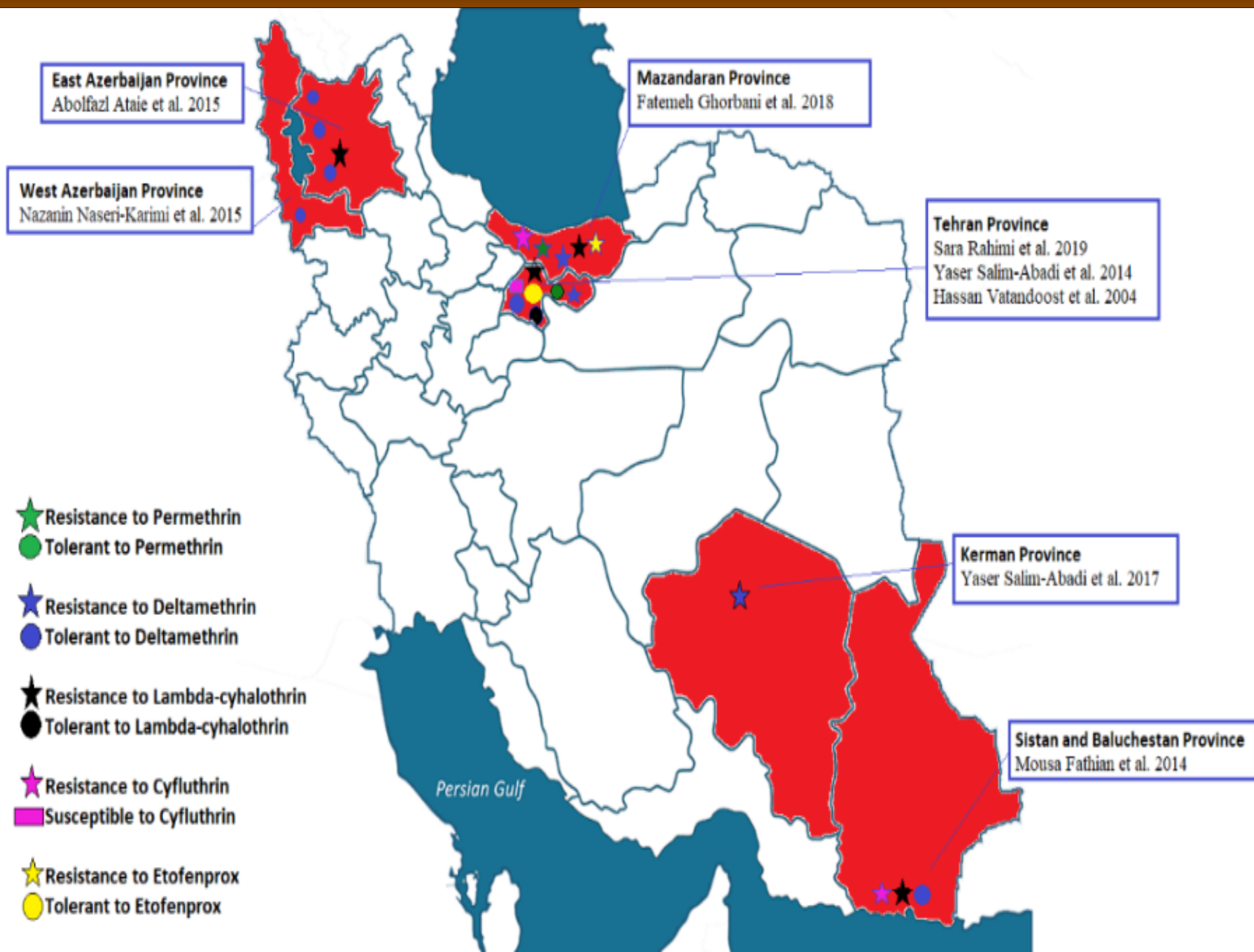


The resistance of *Culex pipiens* against organochlorine insecticides in different regions of Iran

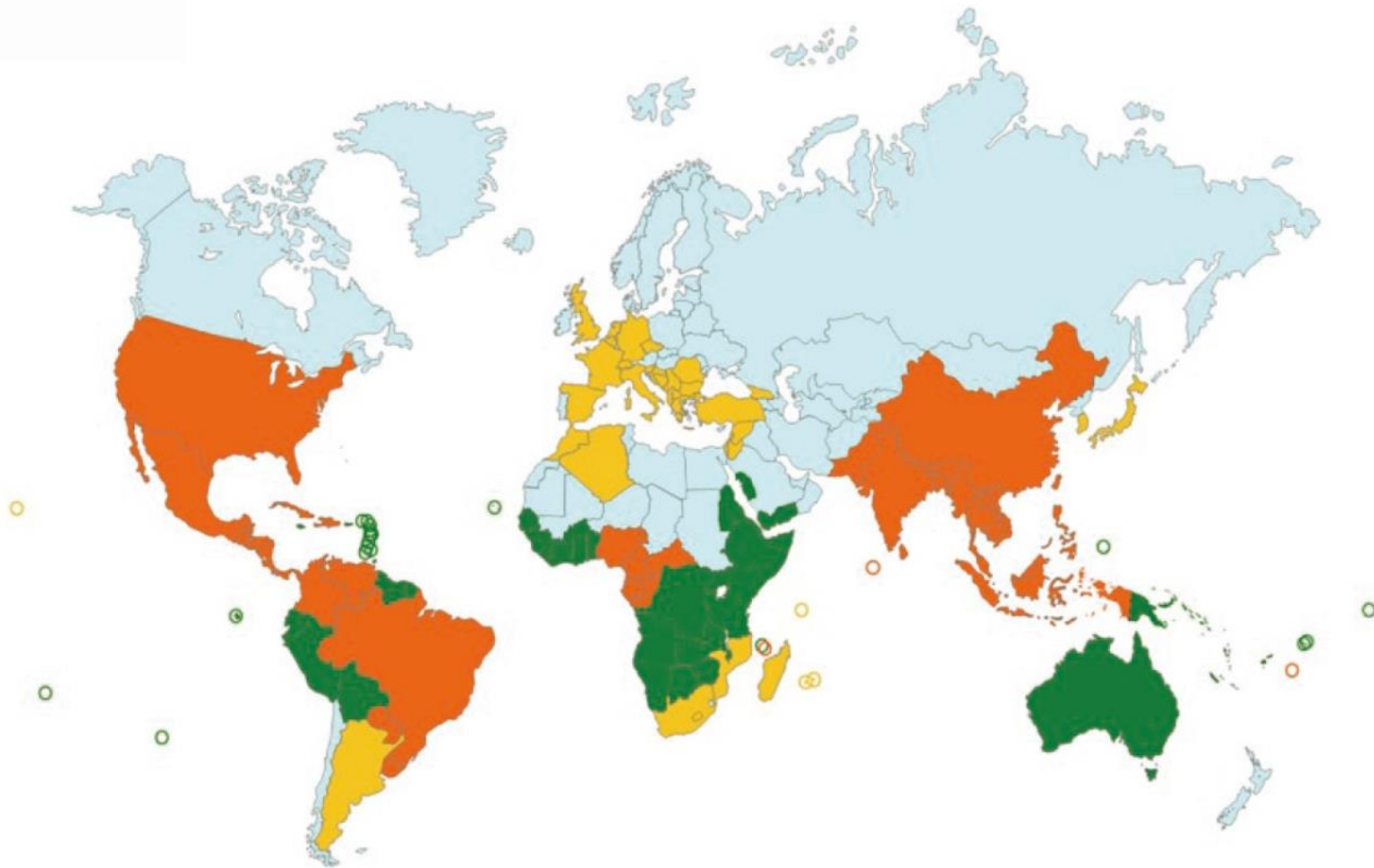








Global distribution of *Aedes aegypti* and *Ae.albopictus*

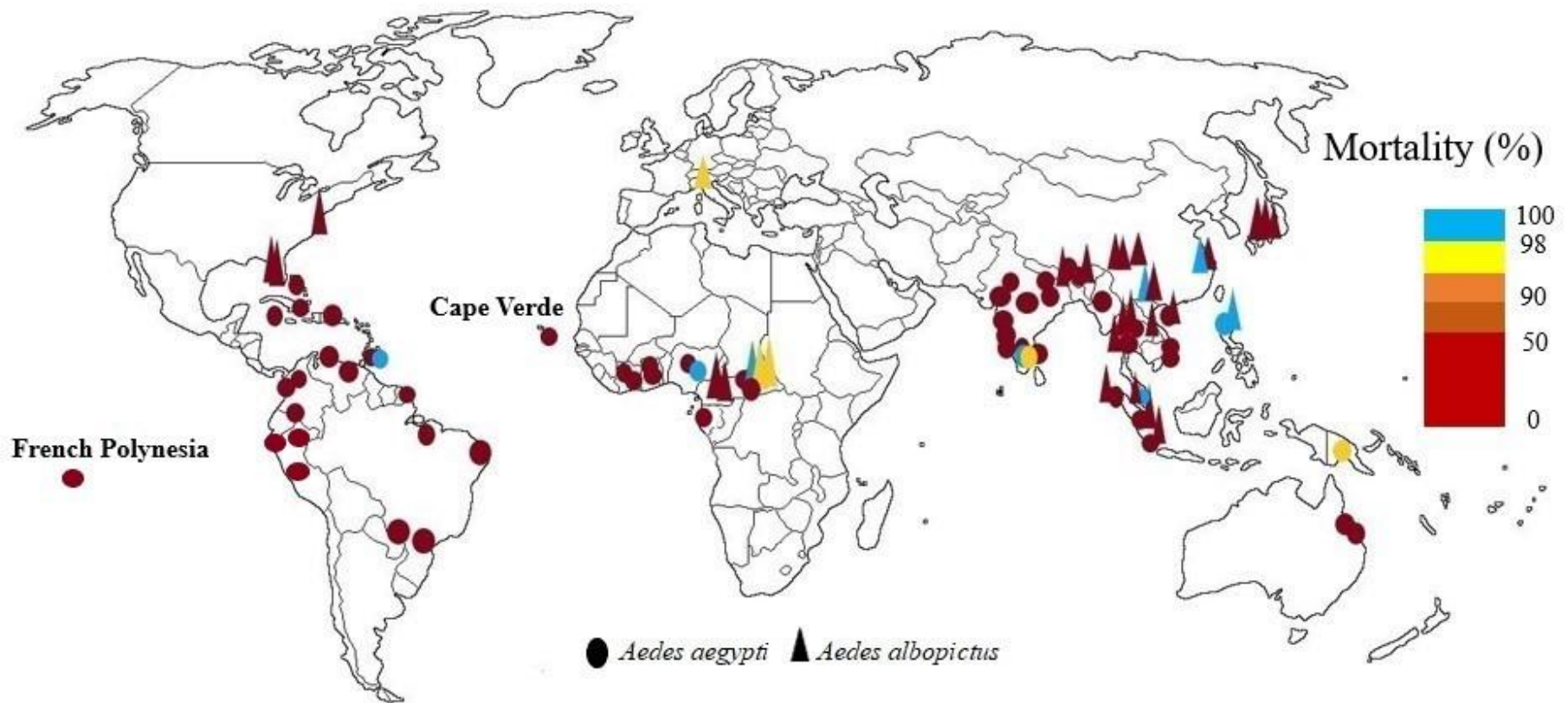


■ *Aedes aegypti*

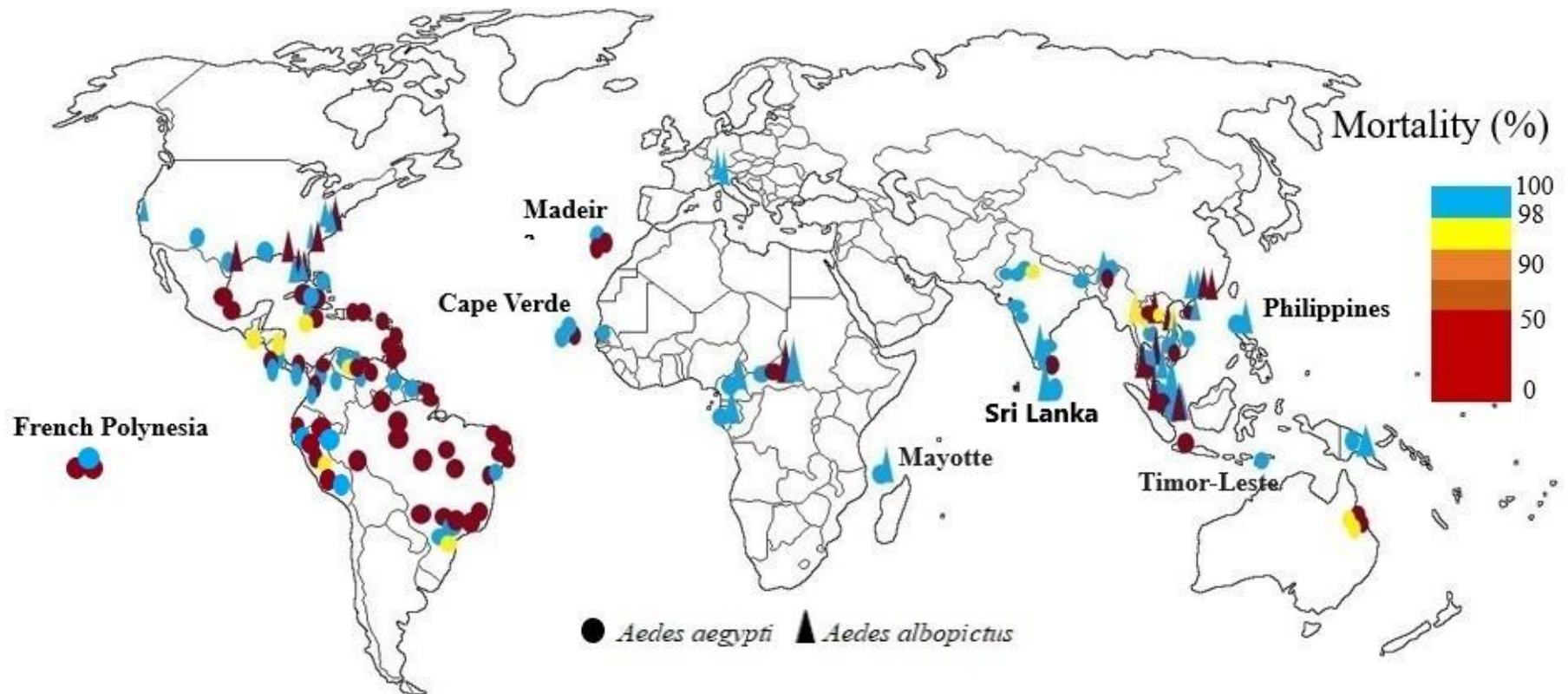
■ *Aedes albopictus*

■ *Aedes aegypti* and *Aedes albopictus*

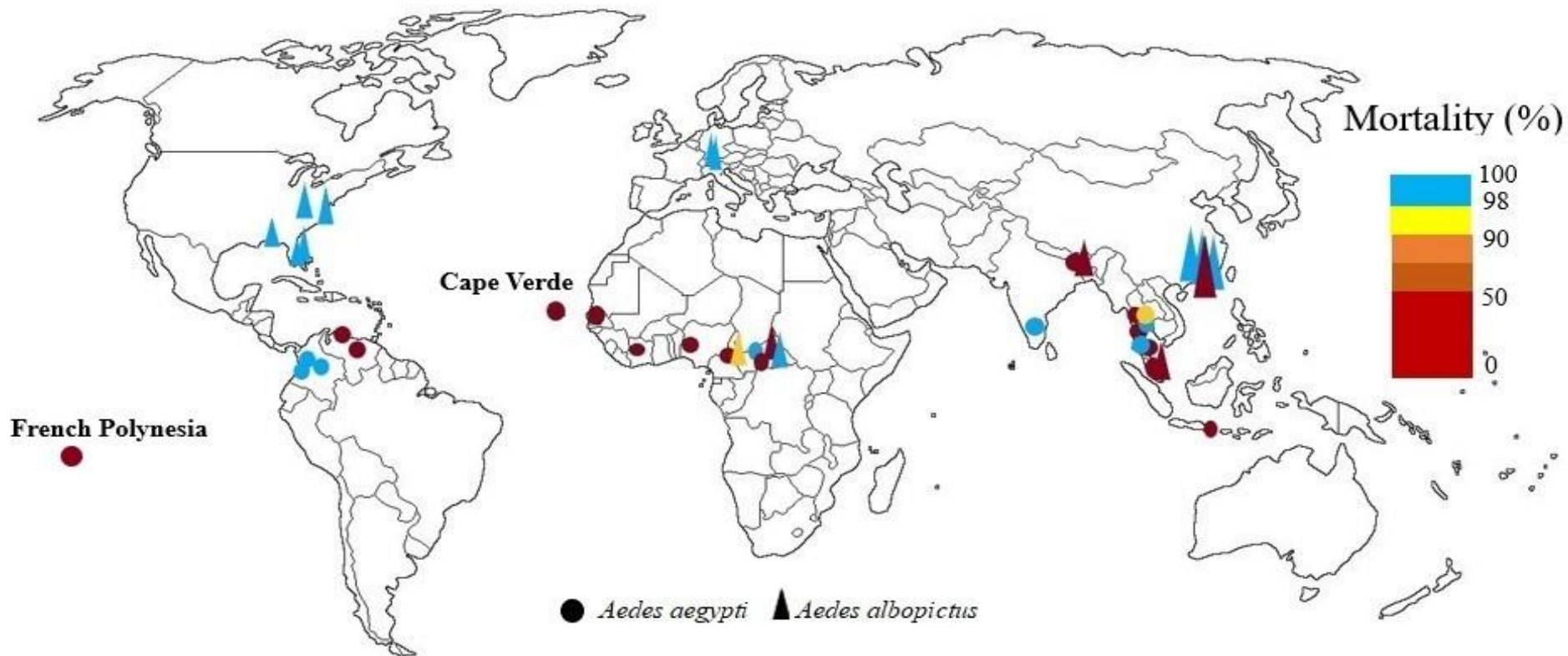
World mapping of organochlorine insecticide resistance in *Ae. aegypti* and *Ae. albopictus*



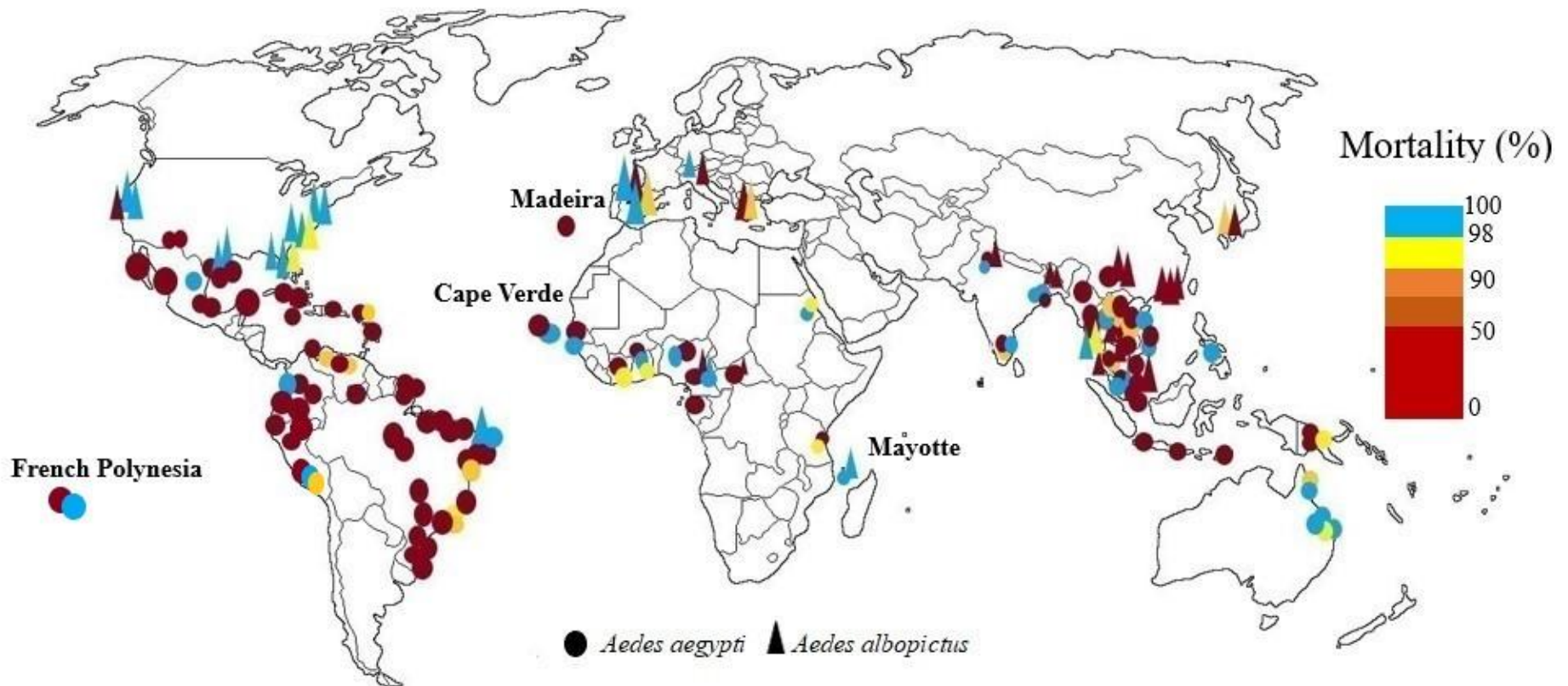
World mapping of organophosphates insecticide resistance in *Ae. aegypti* and *Ae. albopictus*



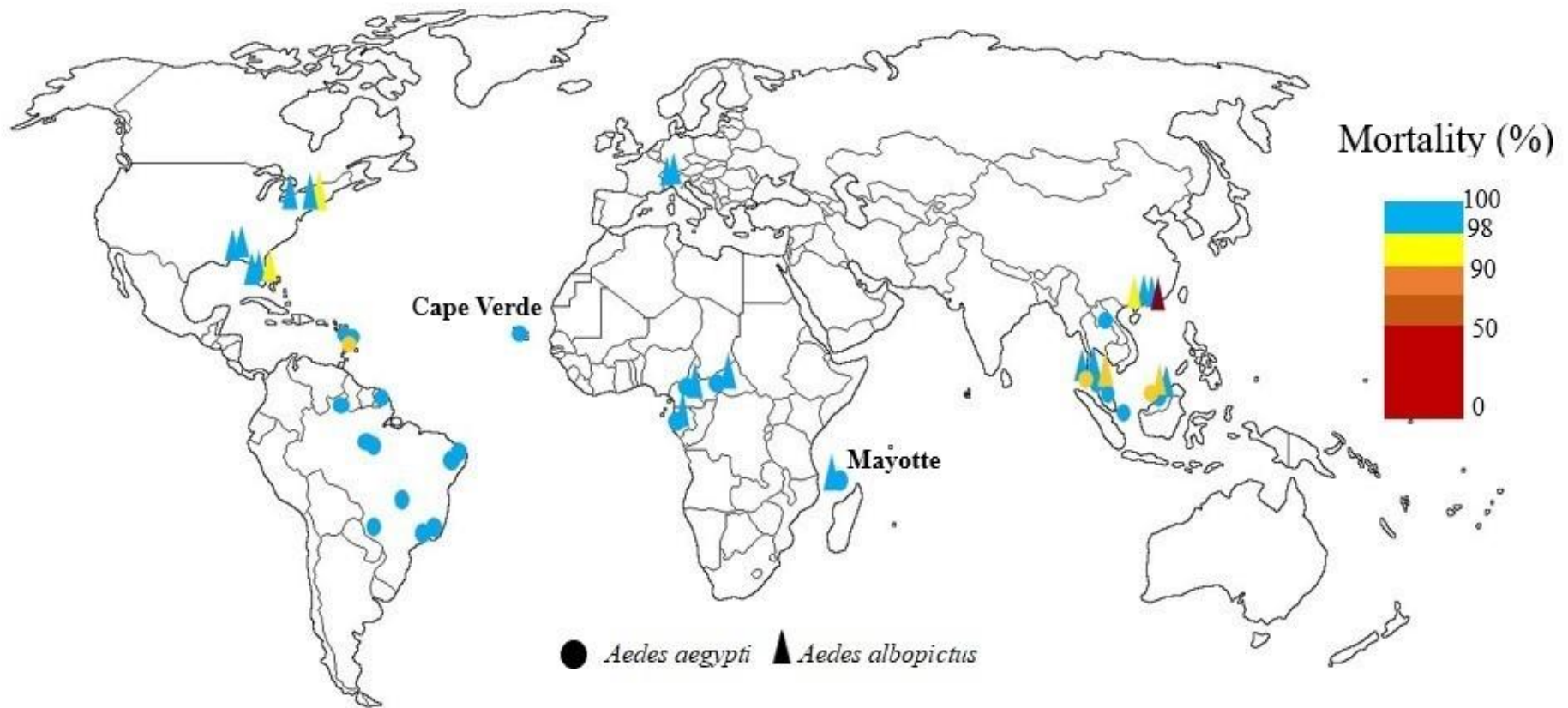
World mapping of carbamates insecticide resistance in *Ae. aegypti* and *Ae. albopictus*



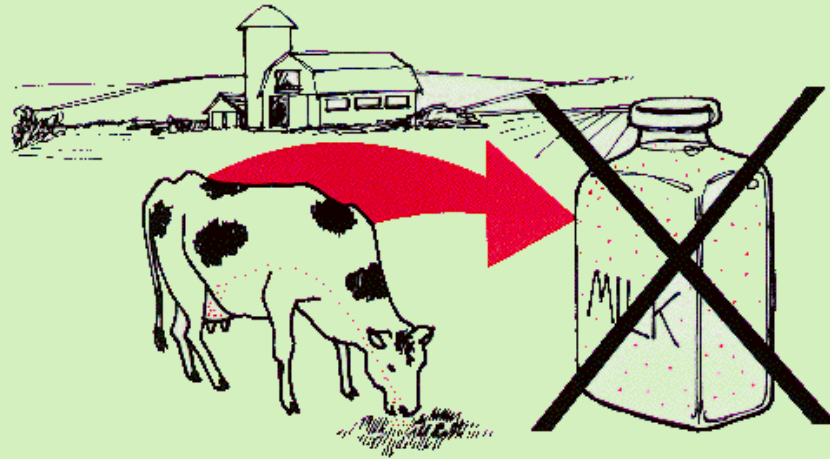
World mapping of pyrethroids insecticide resistance in *Ae. aegypti* and *Ae. albopictus*



World mapping of IGR resistance in *Ae. aegypti* and *Ae. albopictus*



Pesticide residue







Food and Agriculture
Organization of the
United Nations



World Health
Organization

International Code of Conduct on Pesticide Management

Guidance on pesticide licensing schemes

