



GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



FMD in situation Iran , (2014)

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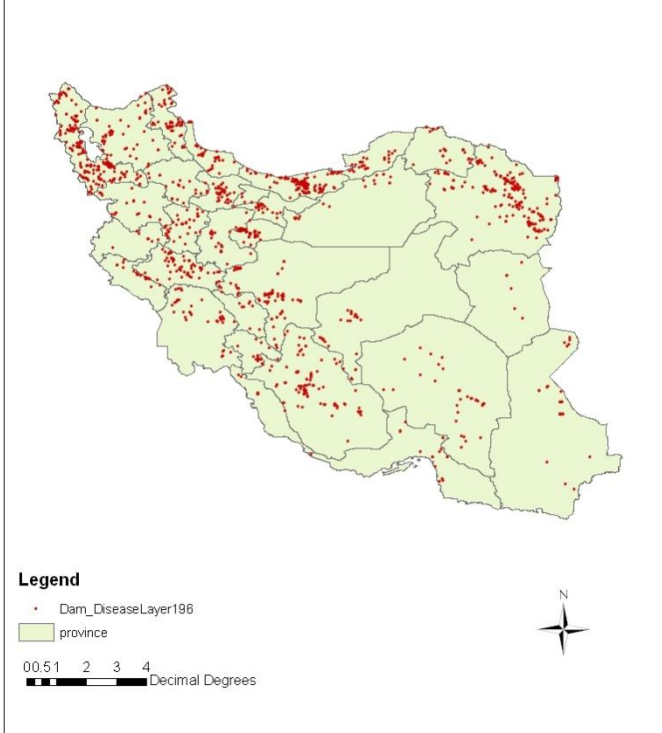


FMD outbreaks 2014-2015

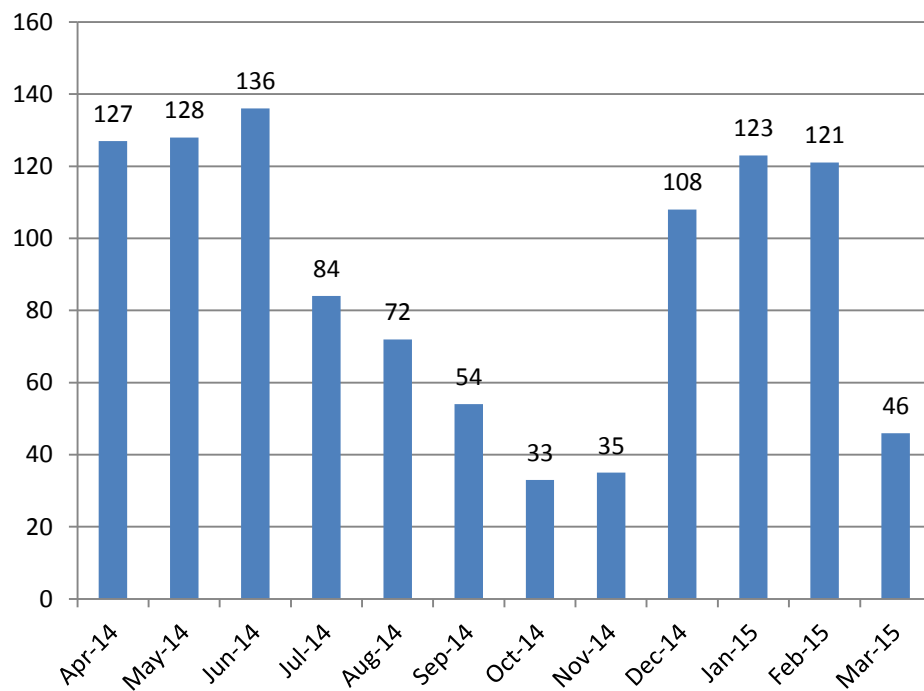
- In last 12 month (April 2014- March 2015) 1381 outbreaks reported in Iran:
 - 1067 outbreaks in Cattle
 - 18829 cases , 340 dead,
 - 314 in sheep and goat
 - 9815 cases, 779 dead
- 81 % reported in villages
- 8 % in Dairy farms (62 % decrease compared to 2013)



**FMD outbreaks Reported during last 12 month
 in Iran (April 2014- 2015)**



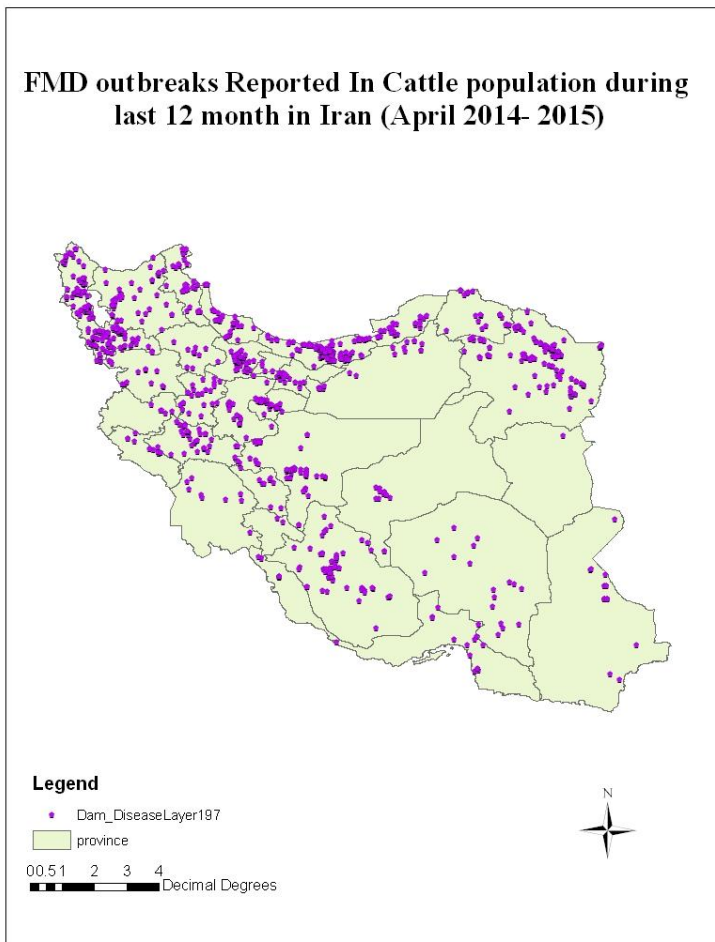
Monthly FMD outbreaks in Cattle 2014



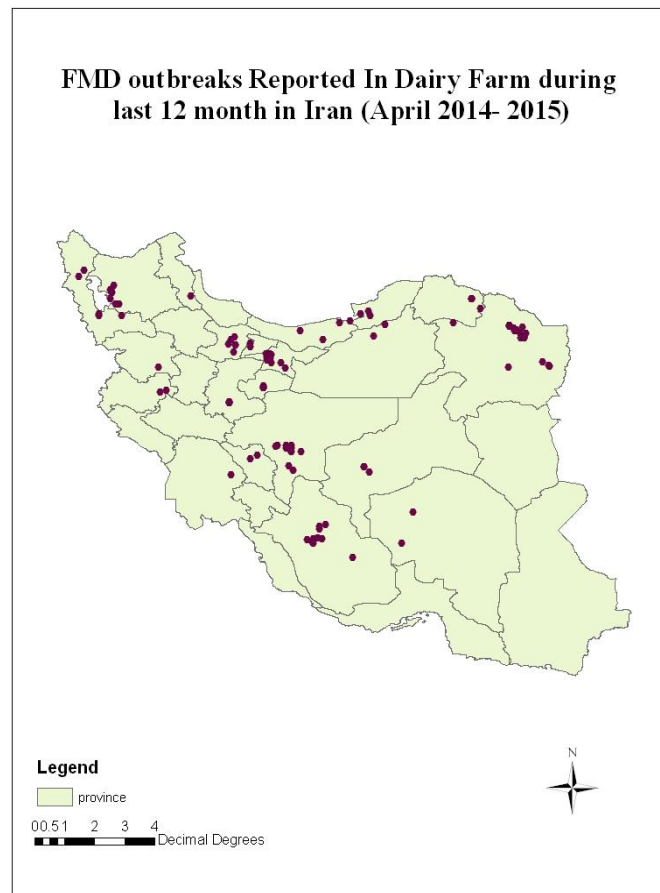


FMD outbreaks 2014-2015

FMD outbreaks Reported In Cattle population during last 12 month in Iran (April 2014- 2015)



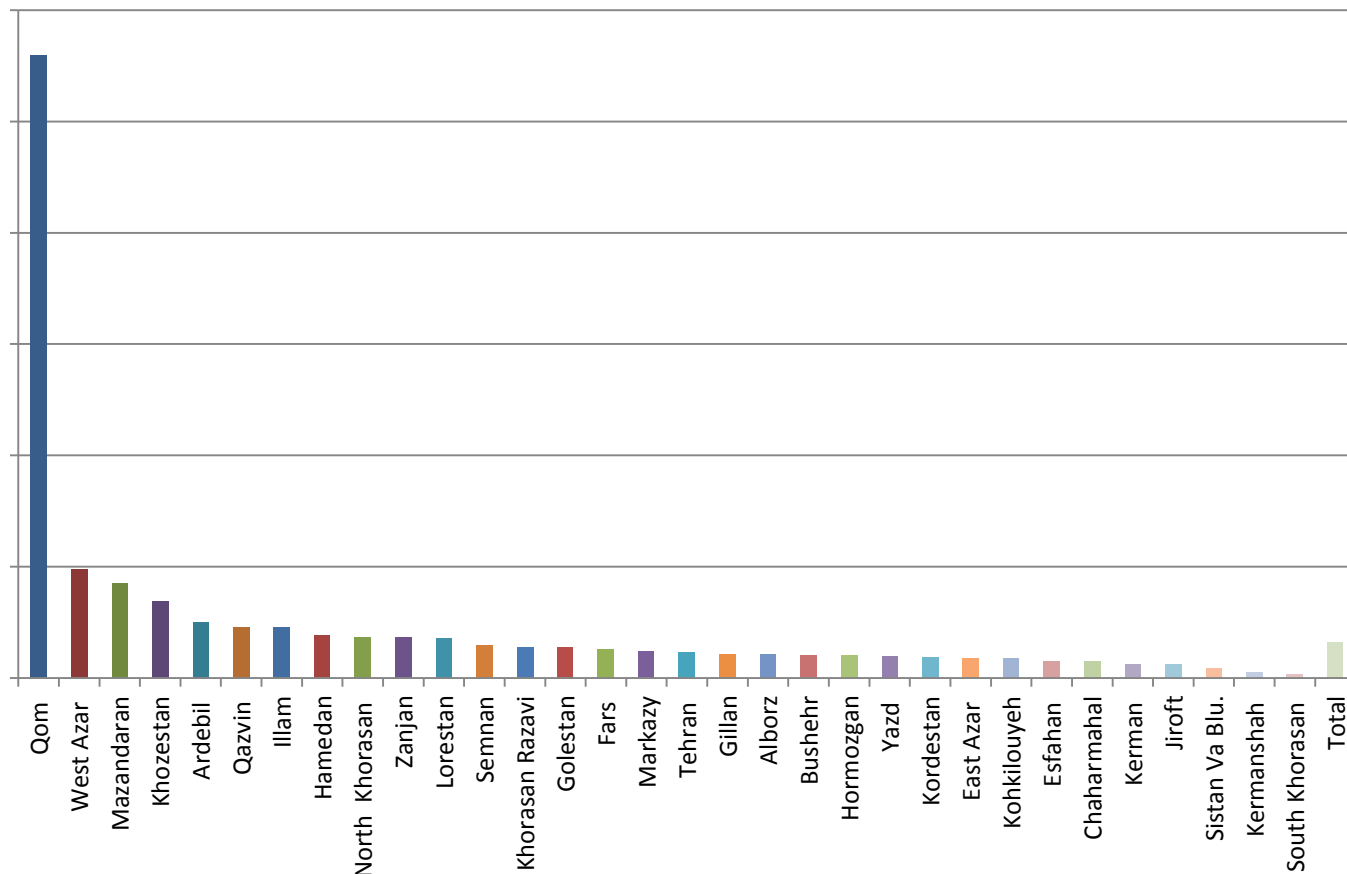
FMD outbreaks Reported In Dairy Farm during last 12 month in Iran (April 2014- 2015)





Provinces	Large ruminants	Small ruminants	total	Total Epi. unit	No. of Outbreak per 100
Qom	82	15	97	347	28.0
West Azar	155	18	173	3543	4.9
Mazandaran	122	58	180	4206	4.3
Khuzestan	135	8	143	4163	3.9
Ardebil	33	20	53	2131	2.5
Qazvin	34	1	35	1538	2.3
Illam	11	8	19	841	2.3
Hamedan	24	9	33	1707	2.5
North Khorasan	21	3	24	1304	1.8
Zanjan	10	12	22	1209	1.8
Lorestan	34	22	56	3172	2.0
Semnan	18	0	18	1219	1.5
Khorasan Razavi	62	22	84	5989	1.4
Golestan	24	2	26	1880	1.4
Fars	64	23	87	6708	1.3
Markazy	22	0	22	1870	1.2
Tehran	22	0	22	1880	1.2
Gillan	33	0	33	3042	1.1
Alborz	5	0	5	466	1.1
Bushehr	8	0	8	767	1.0
Hormozgan	14	3	17	1668	1.0
Yazd	15	11	26	2658	1.0
Kordestan	14	5	19	2024	0.9
East Azar	9	26	35	3913	0.9
Kohkiluyeh	2	13	15	1682	0.9
Esfahan	42	7	49	6365	0.8
Chaharmahal	8	0	8	1045	0.8
Kerman	10	14	24	3812	0.6
Jiroft	7	1	8	1363	0.6
Sistan Va Blu.	20	7	27	6382	0.4
Kermanshah	6	1	7	3063	0.2
South Khorasan	1	5	6	3286	0.2
Total	1067	314	1381	85344	1.6

No. of Outbreak per 100 Epiunit



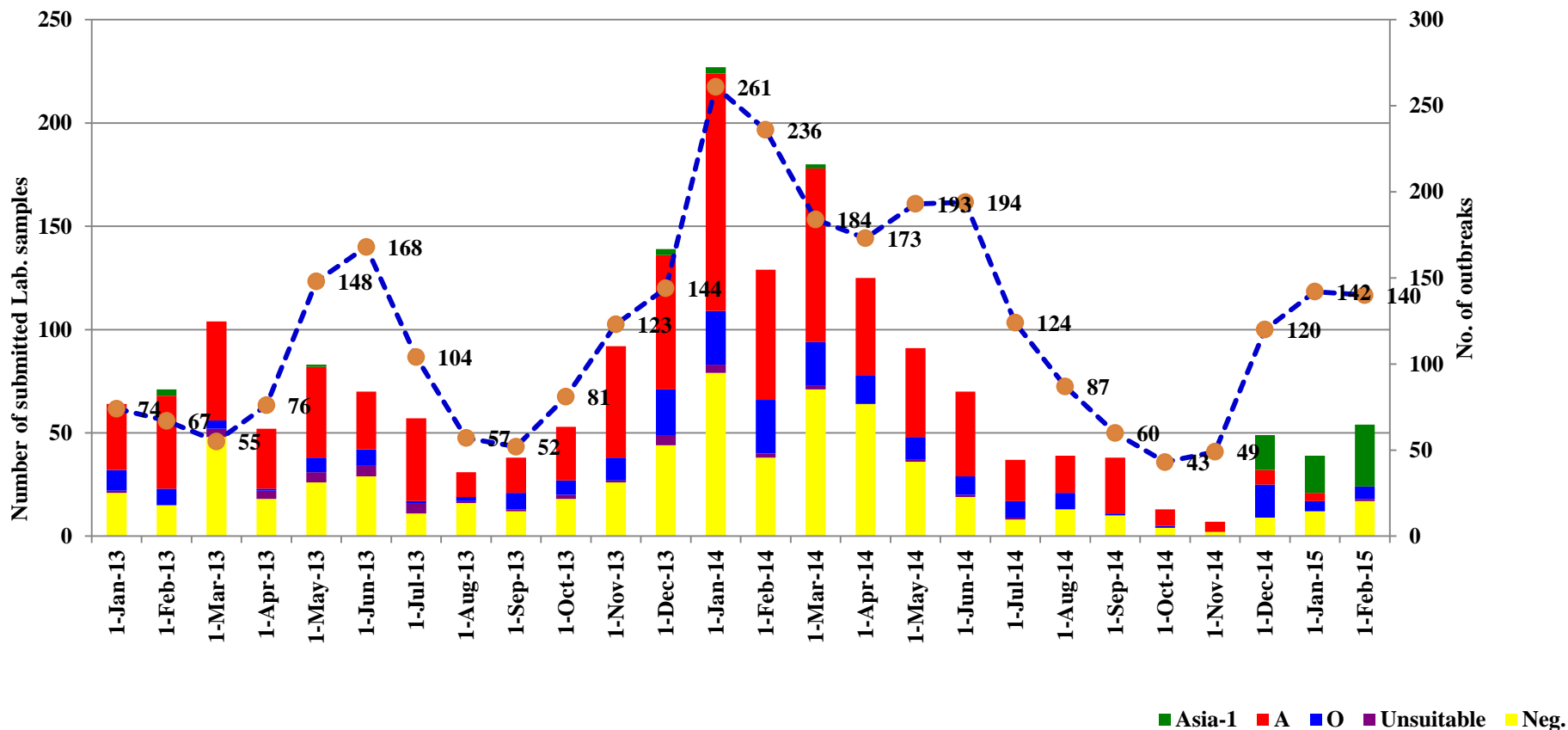


Description of 2014-2015 FMD surveillance results

- Sero-surveys not done.
- In 1393, 580 samples tested in CVL & SnL (5 provinces)
 - 42 % of outbreaks sampled ,
 - 375 (64%) were positive
 - 221 was A, 72 Asia1 & 82 Type O
 - In second semester Type Asia1 was dominant.
 - Vaccine matching performed by CVL & Razi institute
 - 6 Asia1 samples <0.17
 - 6 O samples < 0.6
 - 4 A samples <0.47



FMD serotyping results in Iran Jan 2013 Feb. 2015





Description of FMD control plan

Specific FMD control activities (component 1 of the Global FMD Control Strategy)

- *Internal PT test conducted for 5 Sub-national laboratories by CVL to get rapid and reliable test in regional levels. (S. B add in 2014)*
- *CVL contribute in WRL PT test.*



Description of FMD control plan

- *Up to 50 % of reported outbreaks sampled (including Razi samples).*
- *Ever 4 month , vaccine matching perform on 2-3 samples (according epidemiological data, vaccine breakdown,) in CVL , with cooperation of GIS – Vet data, Razi experts, ...(FMD scientific committee)*
 - *Evaluate serotype circulating in the regions.*



Description of FMD control plan

- *Vaccine (new subtype , monovalent vaccine)*
- *Evaluate and changes in vaccination strategy (in Epiunit level, regions , ...) vaccine type (mono, poly / valent vaccine)*
- *Bilateral agreement with farmer association*
 - *Training / training program for farmers, veterinary technician, practitioner,*
 - *Vaccine & suitable disinfectant, for farmers , ...*



Description of FMD control plan (cont'd)

- Information on national or international projects that feed directly or indirectly to FMD control:
 - FMD outbreak Filed investigation in 10 % of outbreaks
 - Case control study in all the provinces
 - 200 questioner completed in 3 different husbandry systems.
 - 175 was analysed
 - It is estimated to complete at least 700 questioners

Information on ongoing activities related to strengthening veterinary service (component 2 of the global FMD control strategy) to benefit FMD control/

- Animal market control in khorasan Razavi province during Asia1 outbreaks “ movement permeation to slaughterhouse.”
- Ring vaccination with monovalent or high potent vaccine around the outbreaks
- Vaccination of dairy farm with high potent vaccine.
- Private sector training with collaboration of farmer association.



Description of FMD control plan (cont'd)

- Information on dual/synergistic benefits to control major diseases of livestock (component 3 of the global FMD control strategy) arising from FMD control activities
 - LSD /FMD control due to restriction of animal movement.



Major FMD control measures described in control plan

FMD vaccination in cattle population in 2014

		vaccination	No. of Epi Units
(imported vaccine)	General vaccination program	853,507	1,095
	booster vaccination	21,116	209
local Razi Vaccine	General vaccination program	8,304,098	34,508
	booster vaccination	560,785	9,621
Total		9,739,506	45,433

35 million small ruminant vaccinated in 2014

- Vaccination not completed in each phase (up to 60 %)
- Lack of Booster vaccination even in industrial dairy farms.
 - Do not respect protocols
 - Inadequate of supervising by headquarter and provincial veterinary services.
 - Required vaccination facility on farms



Major FMD control measures described in control plan

1. Plans related to FMD surveillance and control in the short and long term
 - Increase vaccine Quality produce by Razi Institute (Potency test in polyvalent vaccine in July 2015).
 - Production will start by Private vaccine producer .
 - *Importation of High potent vaccine in 2015.*
 - *More supervision & monitoring during vaccination program.*
 - *Farmer Cooperative union and veterinary association more contribute on vaccination program, reporting and animal movement control.*



Major FMD control measures described in control plan

- ***Integrated quarantine system will connected to*** Intelligent Transportation System and the toll road .

2. Detail on other control measures (movement controls, biosecurity, awareness campaigns....)

- ***Awareness program in different level***
 - ***Veterinarians (private , public)***



Expected results and current assessment of the control plan achievements

For PCP Stages 2 and 3

Control of animal movement

Border control

- *Vaccination of dairy farm with high potent vaccine*
- *Stage 2:*
 - *Are control measures reducing FMD impact?*
 - *62% decrease of FMD in dairy farms compared to 2013*
- *Stage 3:*
 - *Are control measures moving towards FMD elimination?*



Research plans

- **Case control studies in different animal husbandry sects.**
- **Vaccine potency test**
 - Monovalent type O
 - Hydroxide Aluminum vaccine O = 4.2 PD50
 - oil based (experimental vaccine) >6 PD50
- **Outbreaks investigation**



GAPS IDENTIFIED IN 2014 ROADMAP MEETING

- *National strategic plan:*
 - *From 10 activates in National strategic plan, only some part implemented (dairy farm, live animal importation, animal market) main items still need to action.*
 - *Local Vaccine potency and quality*
 - *lower than 6 PD50 in monovalent O vaccine*
 - *Serotype A & Asia1 ?*



GAPS IDENTIFIED IN 2014 ROADMAP MEETING

- *Animal movement*
 - *Illegal animal movement in borderline*
 - *Un Organized animal market and dealer*
 - *Undefined serotype of Asia1 in illegal imparted cattle from Pakistan*



Summary

- 1381 outbreaks reported last 12 month in livestock Epi Units.
 - 62% decrease of outbreaks in dairy farms compared 2013.
 - High potent vaccine
- Asia1 stéréotype was dominant on second half.
 - R value was <0.2
- Case – control studies shows role of animal market, dealers, Butchers,
- Stackholder coopration and awarness, market cotrols, Vaccine QC , PVM should be highlighted in 2015 (according to risk-based control stetegy).



Thanks for your attention