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GF-TADs

GLOBAL FRAMEWORK FOR THE
PROGRESSIVE CONTROL OF
TRANSBOUNDARY ANIMAL DISEASES



Food and Agriculture
Organization of the
United Nations



World Organisation
for Animal Health
Founded as OIE



AGRICONCONSULTING EUROPE SA



6th meeting (SGE RAB6)

Overview and assessment of ORV in Western Balkans 2017 – 2023

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11 July 2024, Brussels

*Capacity building of veterinary and plant health services in the Western Balkans - Lot 1 - Animal Health - ADEWB II (SANTE/2022/EA-OP/0001)

Content

- Overview of ADEWB II Project activities related to rabies
- Assessment of ORV campaigns in Western Balkans 2017 – 2023
- Conclusions and recommendations



ADEWB II Project activities relevant to rabies



- **Coherent regional approach + Action plan**
- **SOP for sample collection, packaging and dispatch**
- **Assessment of ORV campaigns in the Western Balkans 2017 - 2023**
- **Preliminary recommendations for rabies control in the Western Balkans**
- **Rabies elimination programme in the Western Balkan region (draft)**

ORV in Western Balkans 2017 – 2023

Year	ORV	AL	BiH	KO*	MN	MK	SR
		Data available	Data available	Data available	Data available	Data available	Data available
2017	ORV Spring	YES	NO	NO	NO	YES	YES
	ORV Autumn	YES	NO	NO	NO	YES	NO
2018	ORV Spring	YES	NO	YES	YES	YES	YES
	ORV Autumn	YES	NO	YES	YES	YES	YES
2019	ORV Spring	NO	NO	YES	YES	YES	YES
	ORV Autumn	NO	NO	YES	YES	YES	YES
2020	ORV Spring	NO	NO	YES	YES	NO	NO
	ORV Autumn	YES	YES	YES	NO	NO	NO
2021	ORV Spring	YES	NO	YES	NO	NO	YES
	ORV Autumn	YES	NO	YES	NO	YES	NO
2022	ORV Spring	NO	YES	YES	YES	YES	NO
	ORV Autumn	YES	NO	YES	YES	YES	NO
2023	ORV Spring	YES	YES	YES	YES	YES	NO
	ORV Autumn	YES	NO	NO	YES	NO	NO

ORV implemented	YES/NO
Data available	YES/NO

* : This designation is without prejudice to the position on status, and is in line with UNSCR 1244/1999 and the IJC Opinion on the Kosovo declaration of independence

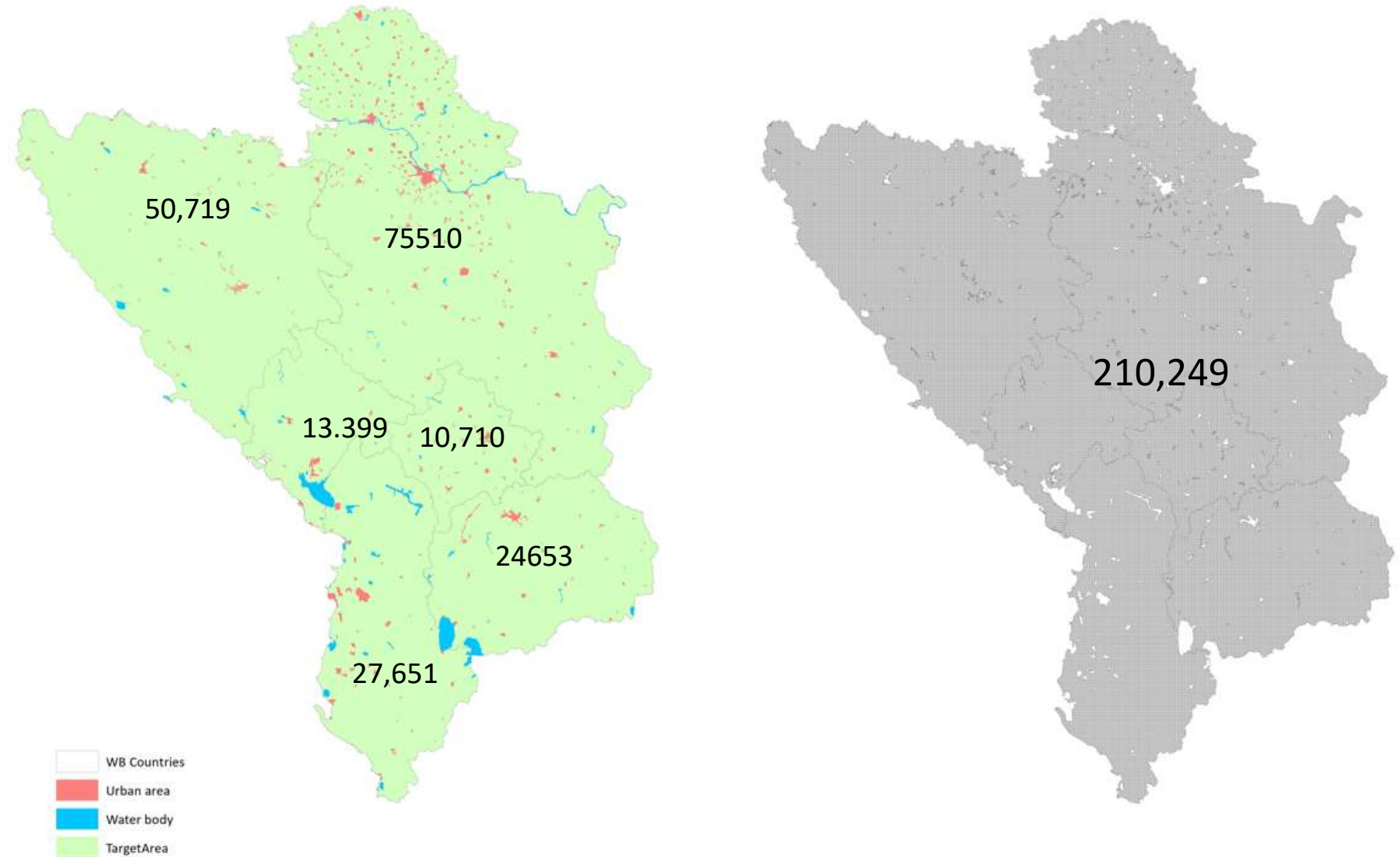
ORV in Western Balkans

- ORV in WB 2010 – 2023

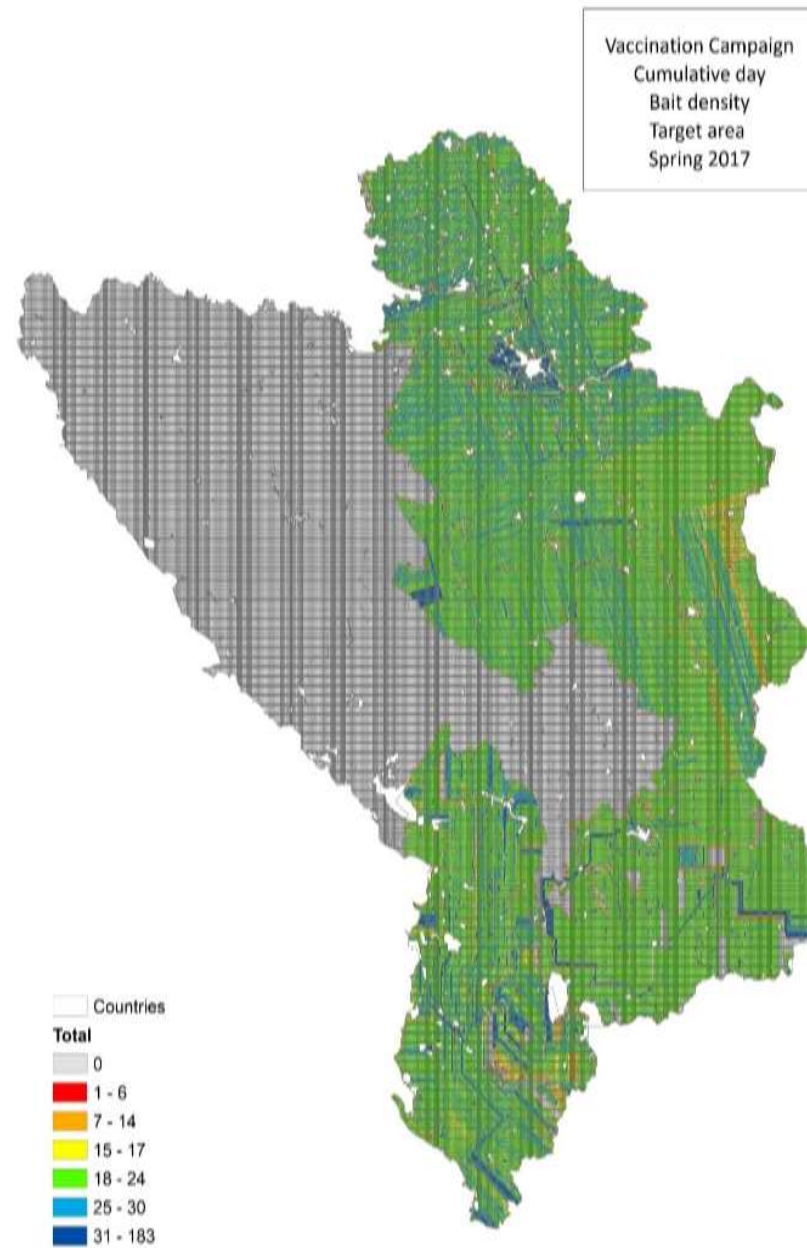
Country	Target density (vaccine baits/km ²)	Target distance between two baits	Flight lines	Target area
Albania	20/km ²	100m	500 m apart	Entire country except lakes and urban areas
North Macedonia	20/km ²	100m	500 m apart	Entire country except lakes and urban areas
Kosovo*	25/km ²	80m	500 m apart	Entire country except lakes and urban areas
Serbia	22/km ²	91m	500 m apart	Entire country except lakes and urban areas
Montenegro	20/km ²	100m	500 m apart	Entire country except lakes and urban areas
Bosnia and Herzegovina	24/km ²	83m	500 m apart	Entire country except lakes and urban areas

ORV Campaigns in Western Balkans

- Target and non-target areas



Extend of analysis



2017 Spring ORV: Number of distributed baits

Distributed baits	Albania	North Macedonia	Serbia	Total
Target area (number)	598,963	516,413	1,659,095	2,774,471
Non-target area (number)	4,013	4,689	14,783	23,485
Total (number)	602,976	521,102	1,673,878	2,797,956
Proportion of baits in target areas (%)	99.33	99.1	99.12	99.16
Proportion of baits in non-target areas (%)	0.67	0.9	0.88	0.84

2017 Spring ORV: Overall bait density

<i>Bait density</i>	Albania	North Macedonia	Serbia
<i>Min</i>	1	1	1
<i>Max</i>	85	183	77
<i>Overall average (target area)</i>	21.6	20.9	21.9

2017 Spring ORV: Bait density in classes

2017 Spring ORV	Albania		North Macedonia		Serbia	
Bait density (classes)	Number of squares	% of squares	Number of squares	% of squares	Number of squares	% of squares
0	1,241	4.31%	2,831	11.12%	1,909	2.43%
1-6	434	1.51%	287	1.13%	1,474	1.88%
7-14	2,176	7.55%	1,579	6.20%	4,254	5.43%
15-17	2,121	7.36%	667	2.62%	3,814	4.86%
18-24	16,361	56.80%	17,706	69.57%	50,593	64.53%
25-30	4,511	15.66%	1,119	4.40%	14,687	18.73%
>31	1,960	6.80%	1,260	4.95%	1,676	2.14%
Total	28,804	100.00%	25,449	100.00%	78,407	100.00%

2017 Spring ORV: Distance between two baits

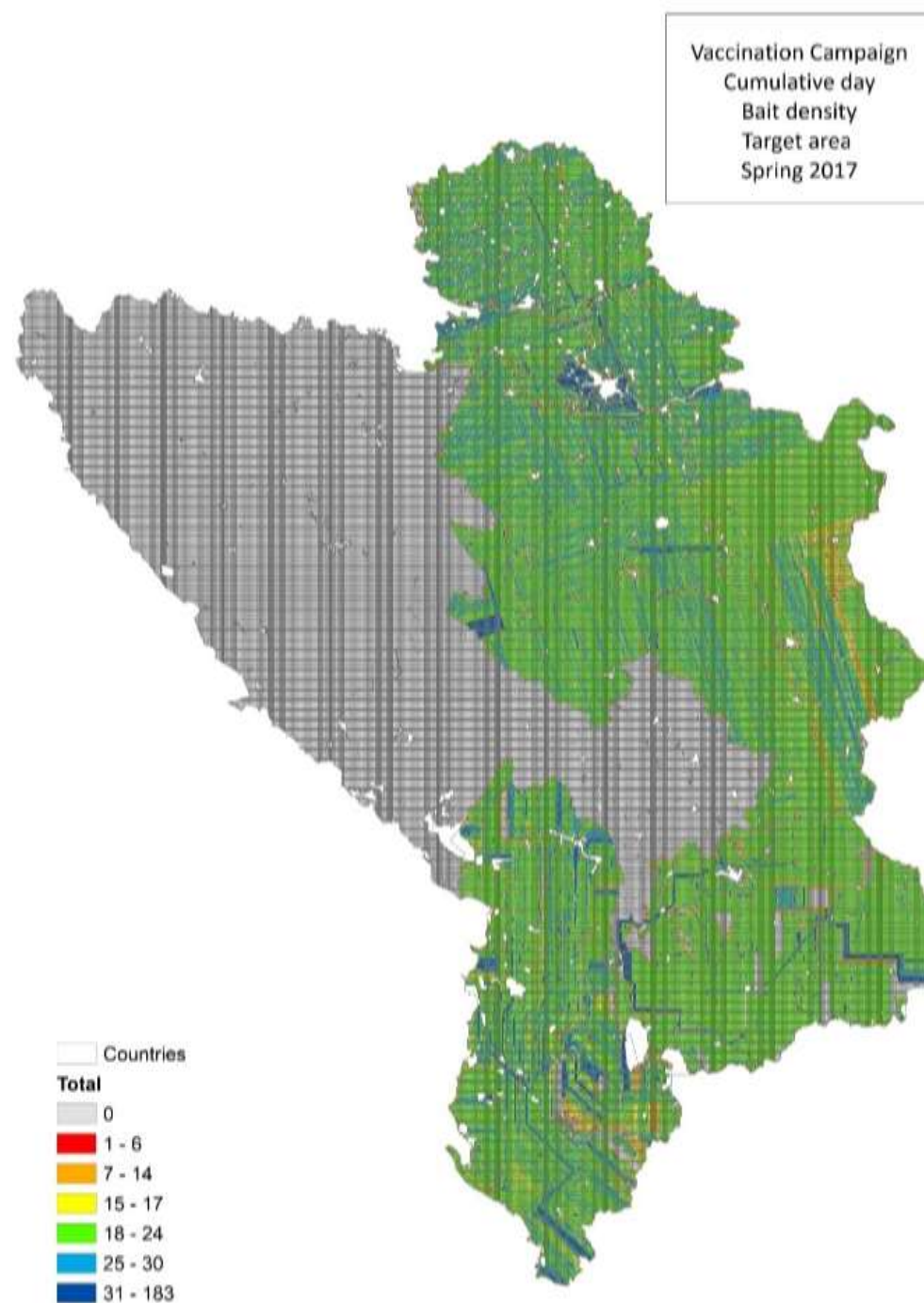
Distance between two consecutive baits	Albania	North Macedonia	Serbia
min	1	8	1
max	995	998	999
mean	89.6	84.6	89.3
median	93	90	

2017 Spring ORV – Non covered area

2017 Spring	Total area	Total target area	Covered target area		Non-covered target area	
	km ²	km ²	km ²	%	km ²	%
Albania	28,764	27,651	26,374	95.38%	1,277	4.62%
North Macedonia	25,422	24,653	21,719	88.10%	2,934	11.90%
Serbia	77,542	75,510	73,345	97.13%	2,165	2.87%
Total	156,496	151,923	145,547	95.80%	6,376	4.20%

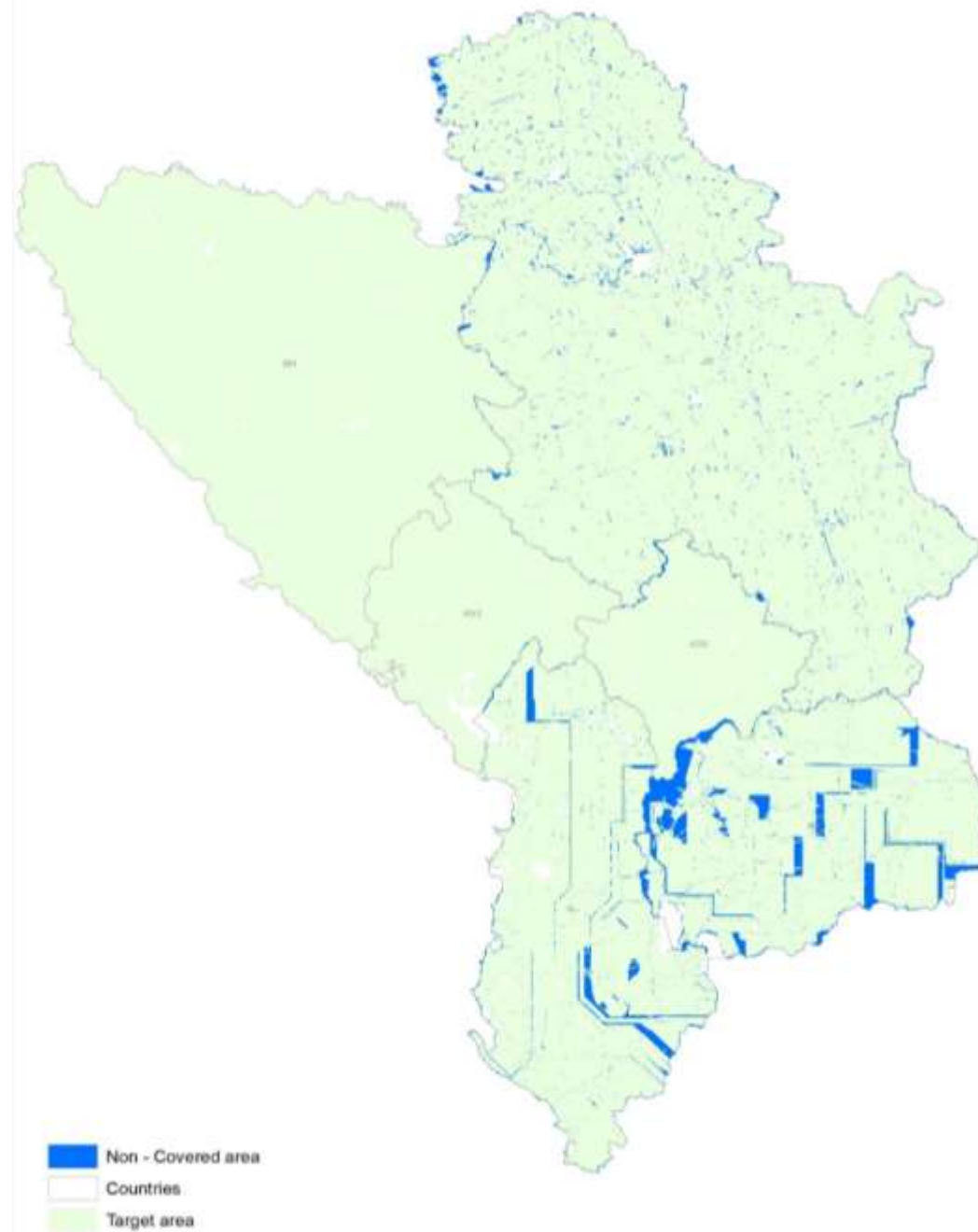
2017 Spring ORV – Overall bait density

2017 Spring	AL	BiH	KO*	MN	MK	RS
ORV Implementd						
Bait denisty (baits/m2)	21.6				20.9	21.9
Distance between baits (median in m)	93				90	89
Non-covered target area (in %)	4.62				11.9	2.87



2017 Spring ORV – Non covered area

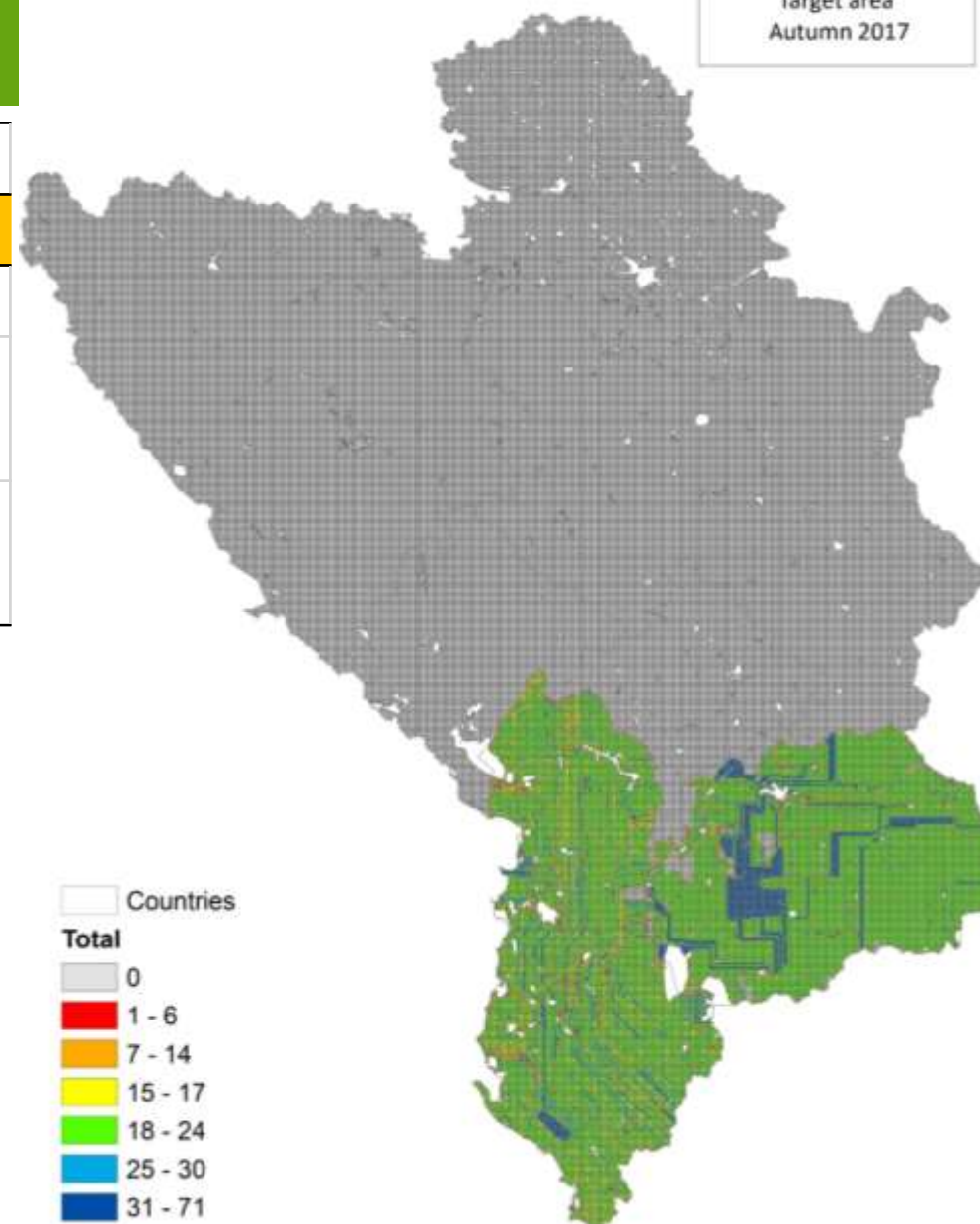
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ORV Implementd						
Bait denisty (baits/m2)	21.6				20.9	21.9
Distance between baits (median in m)	93				90	89
Non-covered target area (in %)	4.62				11.9	2.87



2017 Autumn ORV

2017 Autumn	AL	BiH	KO*	MN	MK	RS
ORV Implementd						
Bait denisty (baits/m2)	20				22	
Distance between baits (median in m)	96				92	
Non-covered target area (in %)	2.6				5	

Vaccination Campaign
Cumulative day
Bait density
Target area
Autumn 2017



Countries
Total
0
1 - 6
7 - 14
15 - 17
18 - 24
25 - 30
31 - 71

2017 Autumn ORV

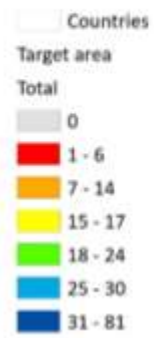
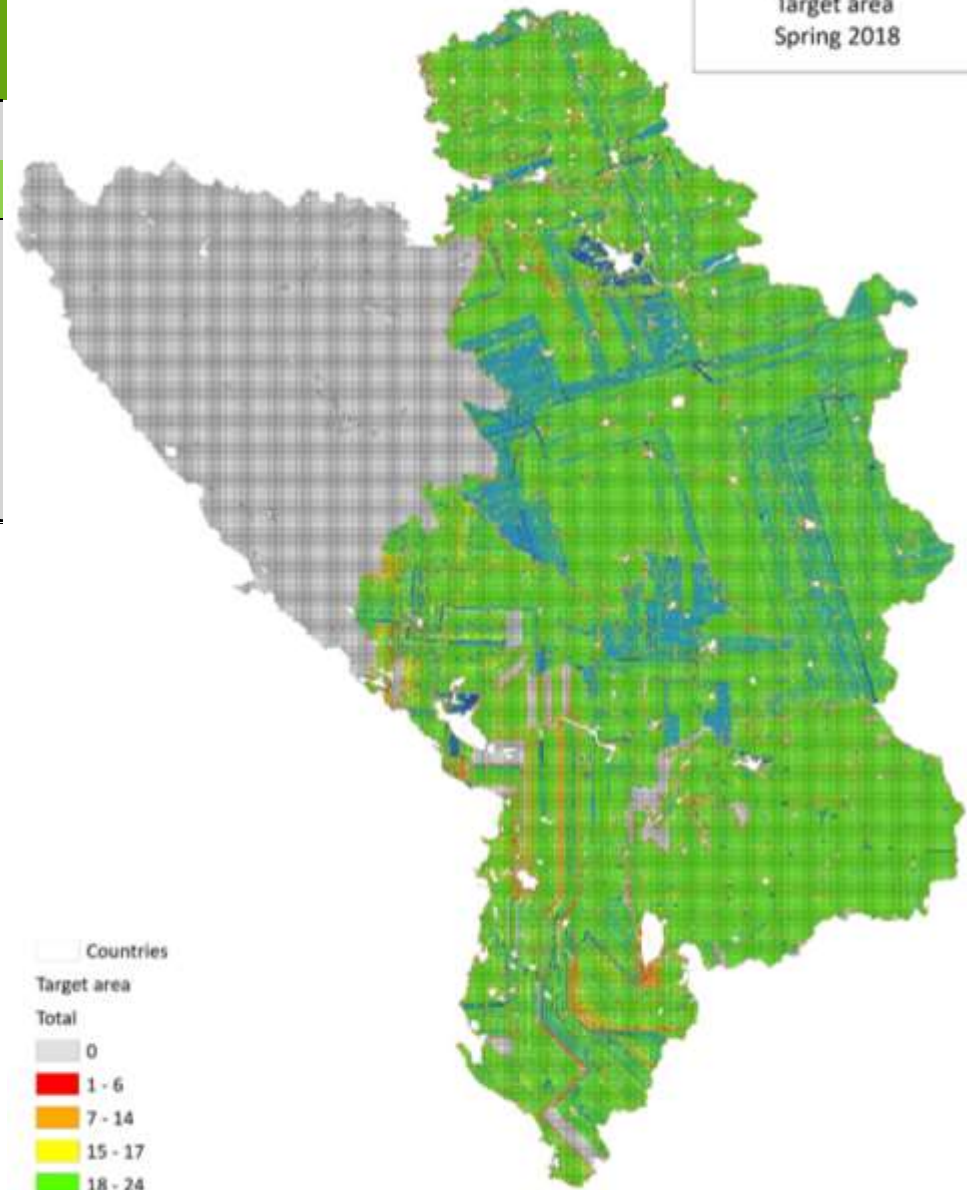
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ORV Implementd						
Bait denisty (baits/m2)	20				22	
Distance between baits (median in m)	96				92	
Non-covered target area (in %)	2.6				5	



2018 Spring ORV

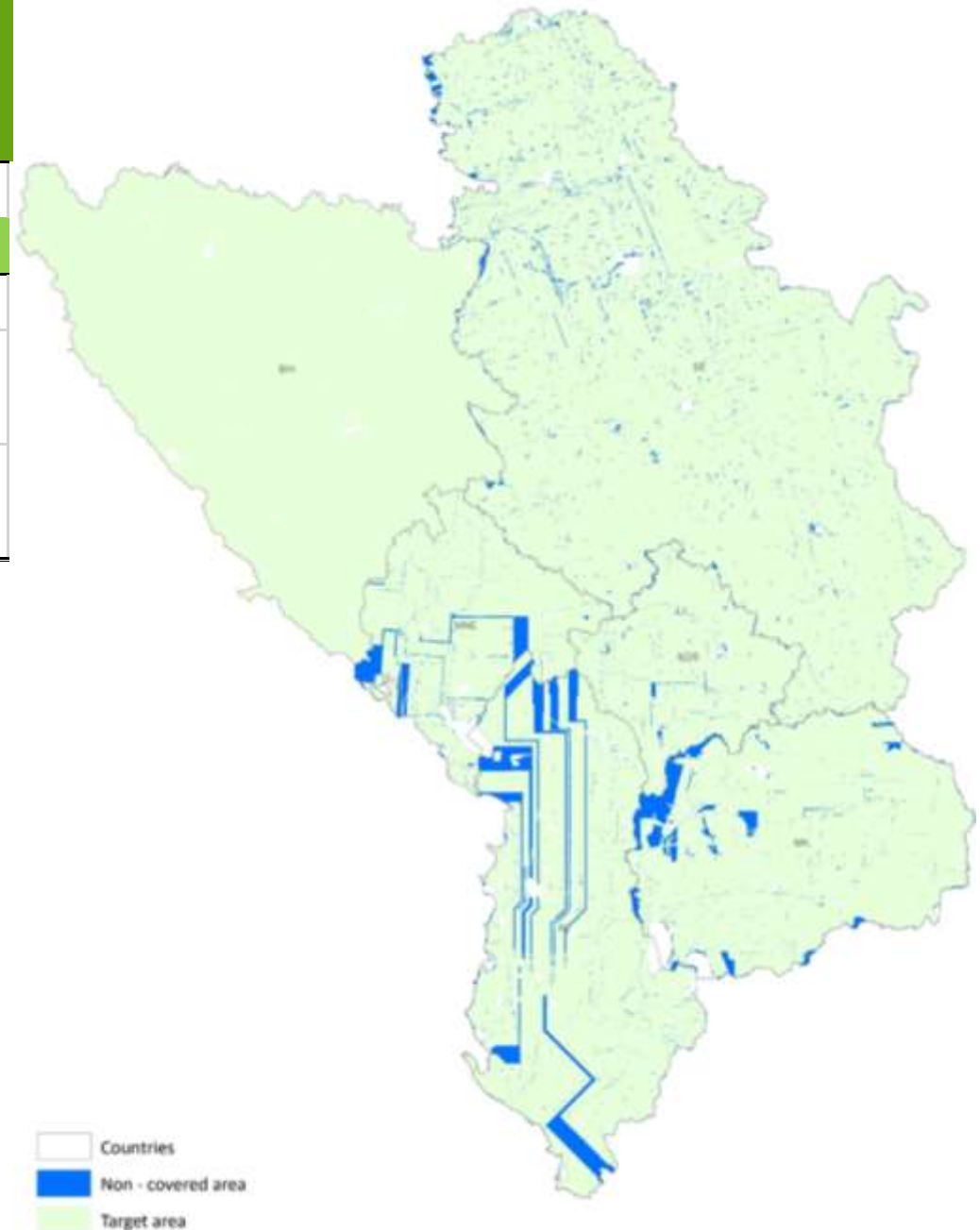
2018 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	18.13		23.4	19.7	19.9	22
Distance between baits (median in metres)	96		83	94	93	88
Non-covered target area (in %)	11.58		2.3	7.78	6.88	2.9

Vaccination Campaign
 Cumulative day
 Bait density
 Target area
 Spring 2018



2018 Spring ORV

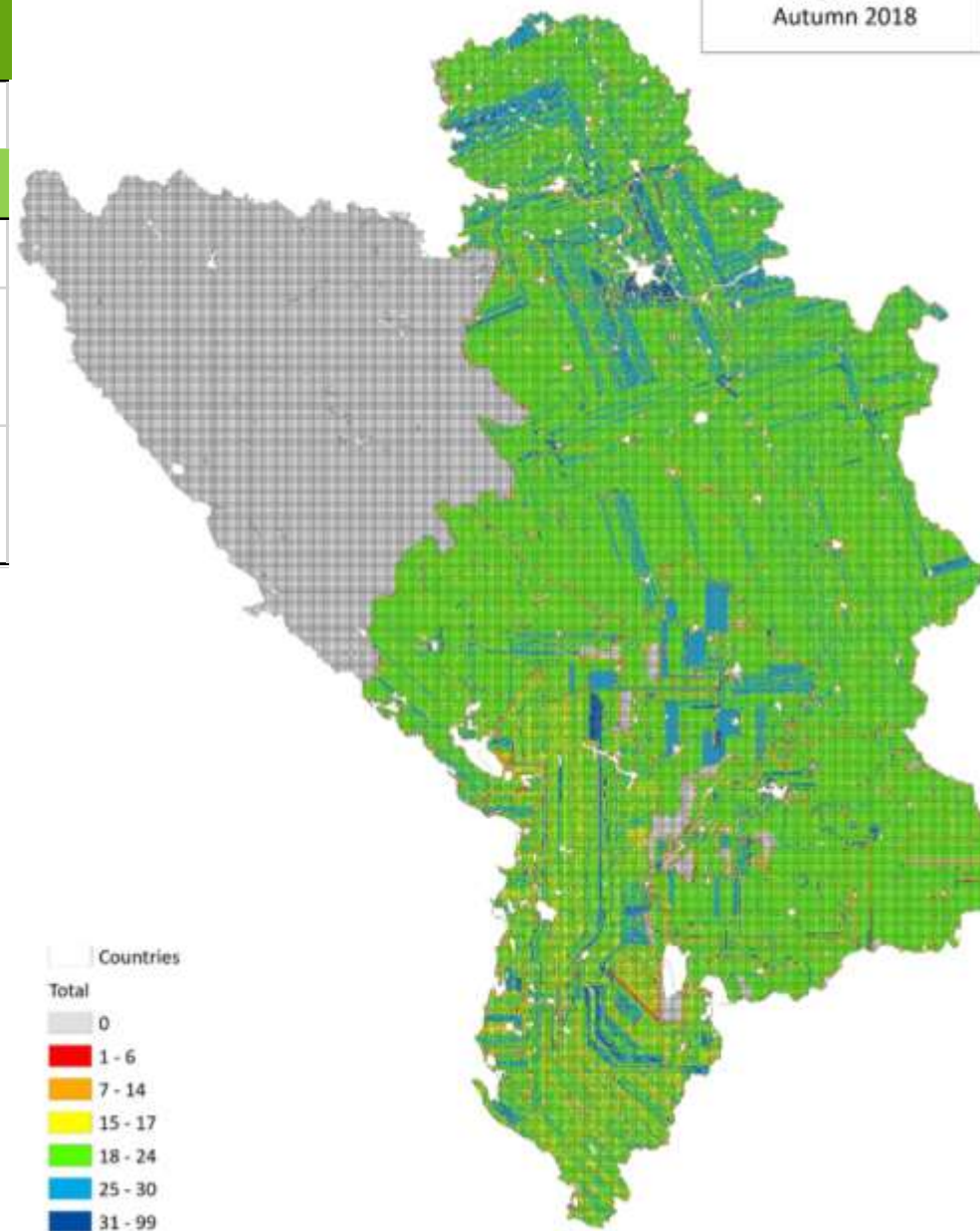
2018 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	18.13		23.4	19.7	19.9	22
Distance between baits (median in metres)	96		83	94	93	88
Non-covered target area (in %)	11.58		2.3	7.78	6.88	2.9



2018 Autumn ORV

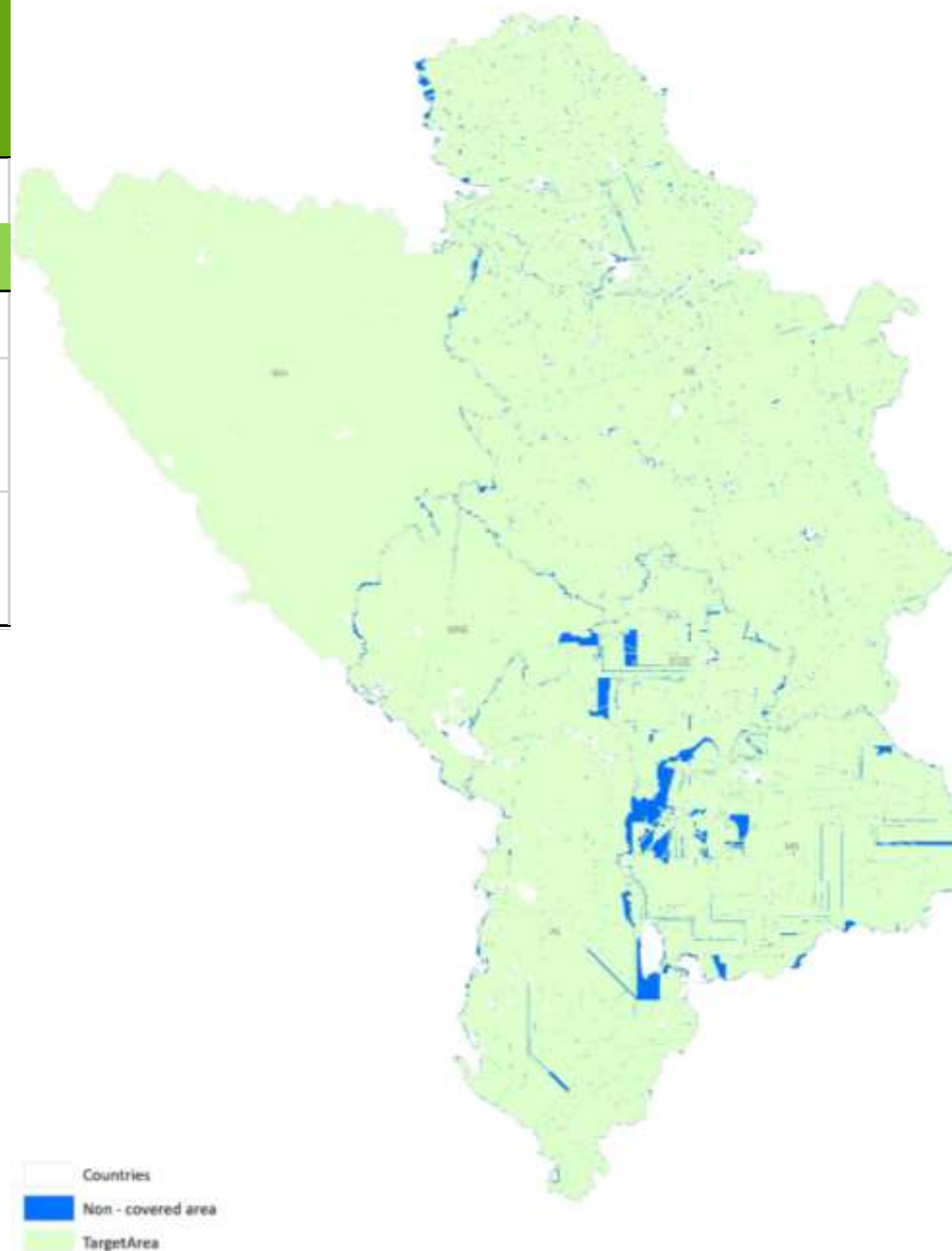
2018 Autumn	AL	BiH	KO*	MN	MK	RS
ORV Implemented						
Bait density (baits/m ²)	20.1		22.3	20.5	19.7	22.1
Distance between baits (median in metres)	104		83	95	93	88
Non-covered target area (in %)	2.75		6.85	2.32	8.27	2.19

Vaccination Campaign
Cumulative day
Bait density
Target area
Autumn 2018



2018 Autumn ORV

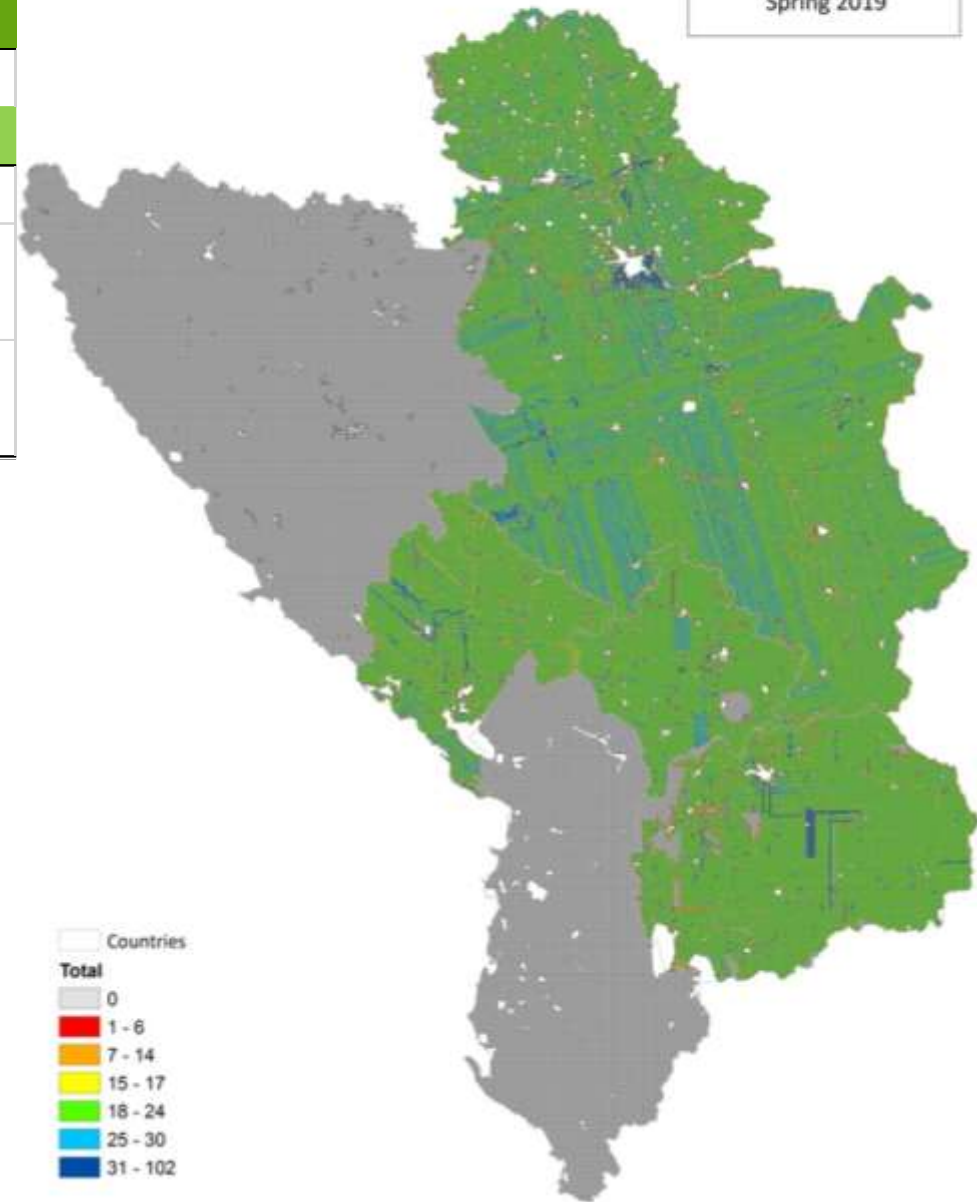
2018 Autumn	AL	BiH	KO*	MN	MK	RS
ORV Implemented						
Bait density (baits/m ²)	20.1		22.3	20.5	19.7	22.1
Distance between baits (median in metres)	104		83	95	93	88
Non-covered target area (in %)	2.75		6.85	2.32	8.27	2.19



2019 Spring ORV

2019 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)			21.8	20.1	19.6	21.9
Distance between baits (median in metres)			86	97	95	88
Non-covered target area (in %)			5.18	1.34	8.27	2.48

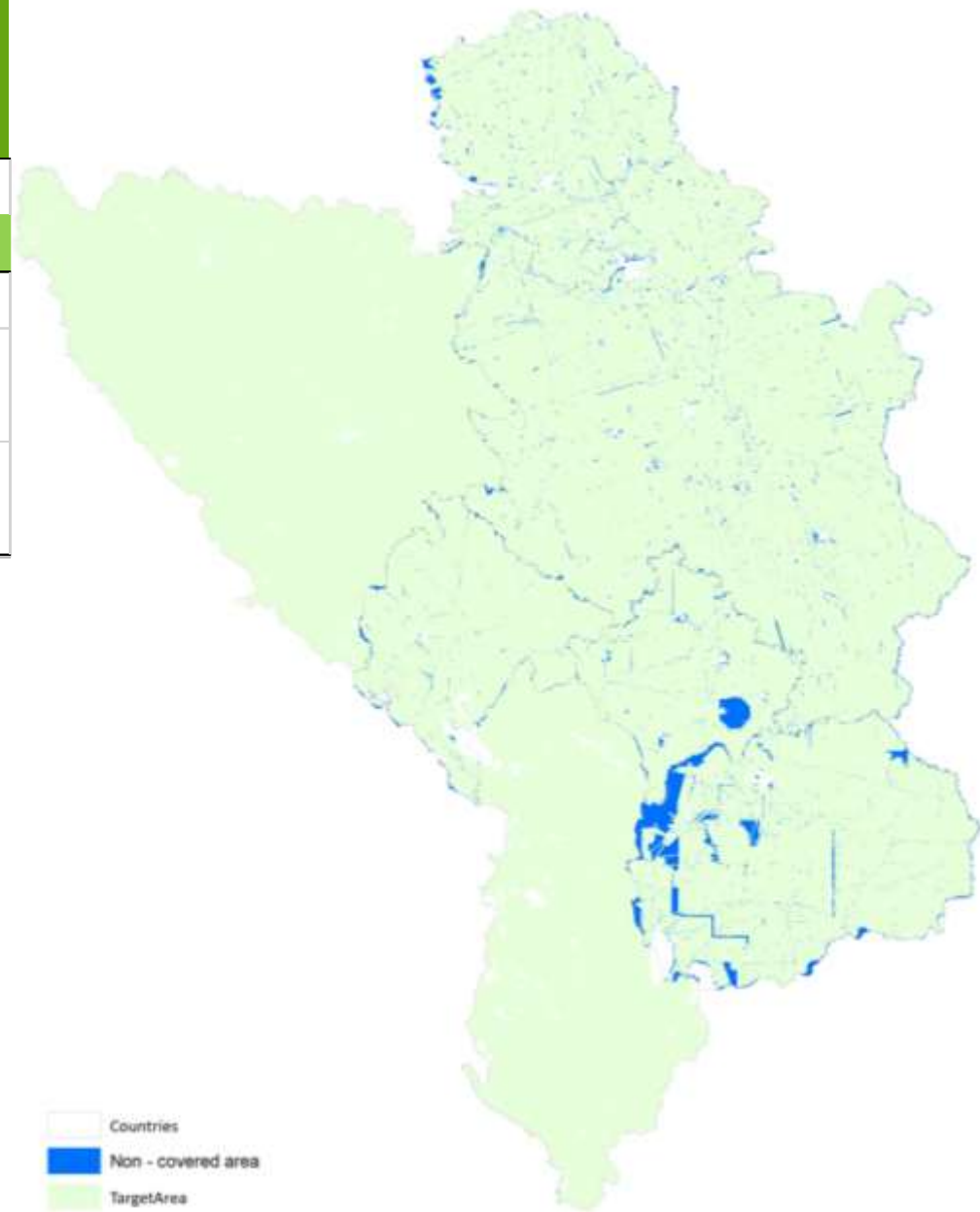
Vaccination Campaign
Cumulative day
Bait density
Target area
Spring 2019



Countries
Total
0
1 - 6
7 - 14
15 - 17
18 - 24
25 - 30
31 - 102

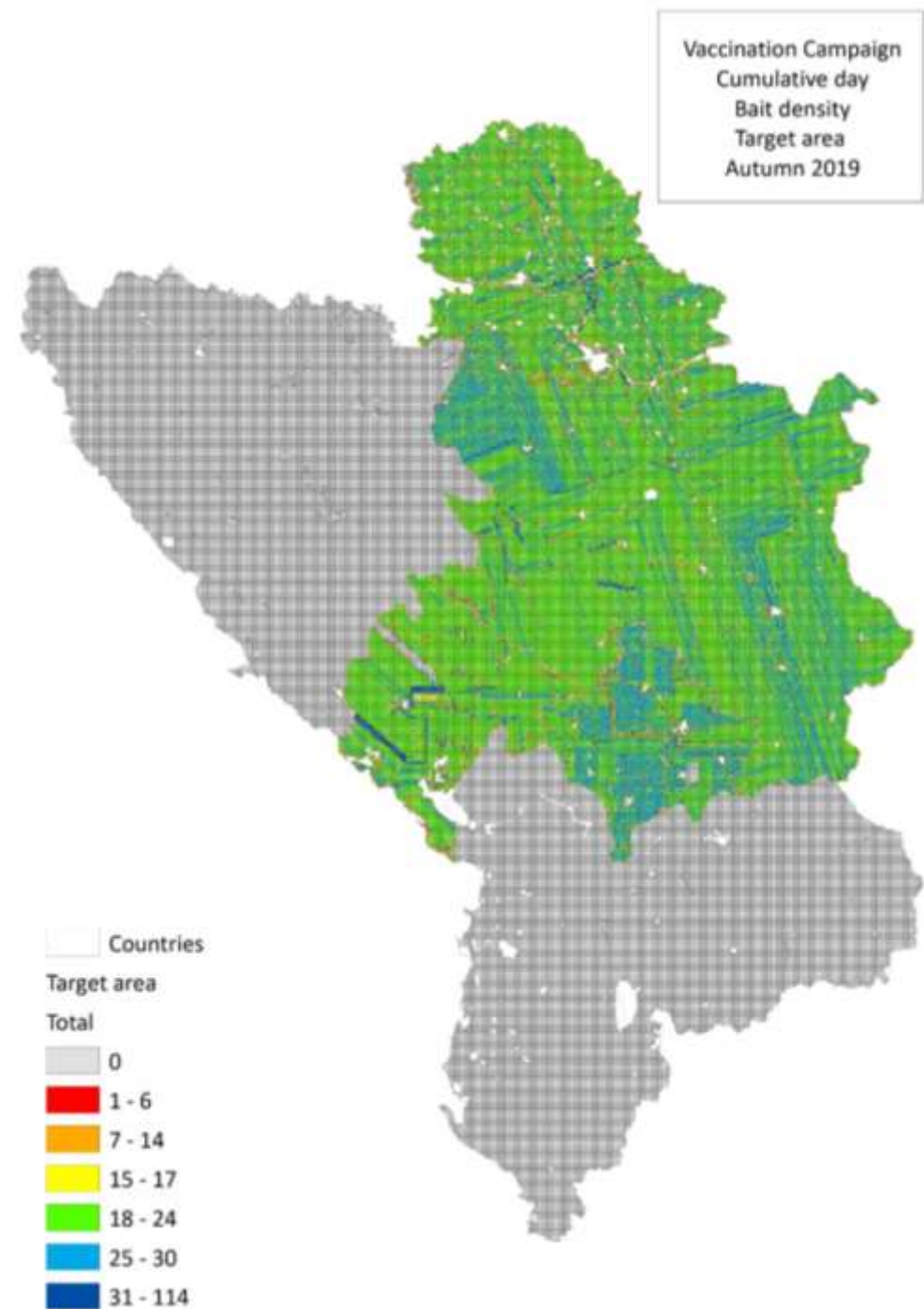
2019 Spring ORV

2019 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)			21.8	20.1	19.6	21.9
Distance between baits (median in metres)			86	97	95	88
Non-covered target area (in %)			5.18	1.34	8.27	2.48



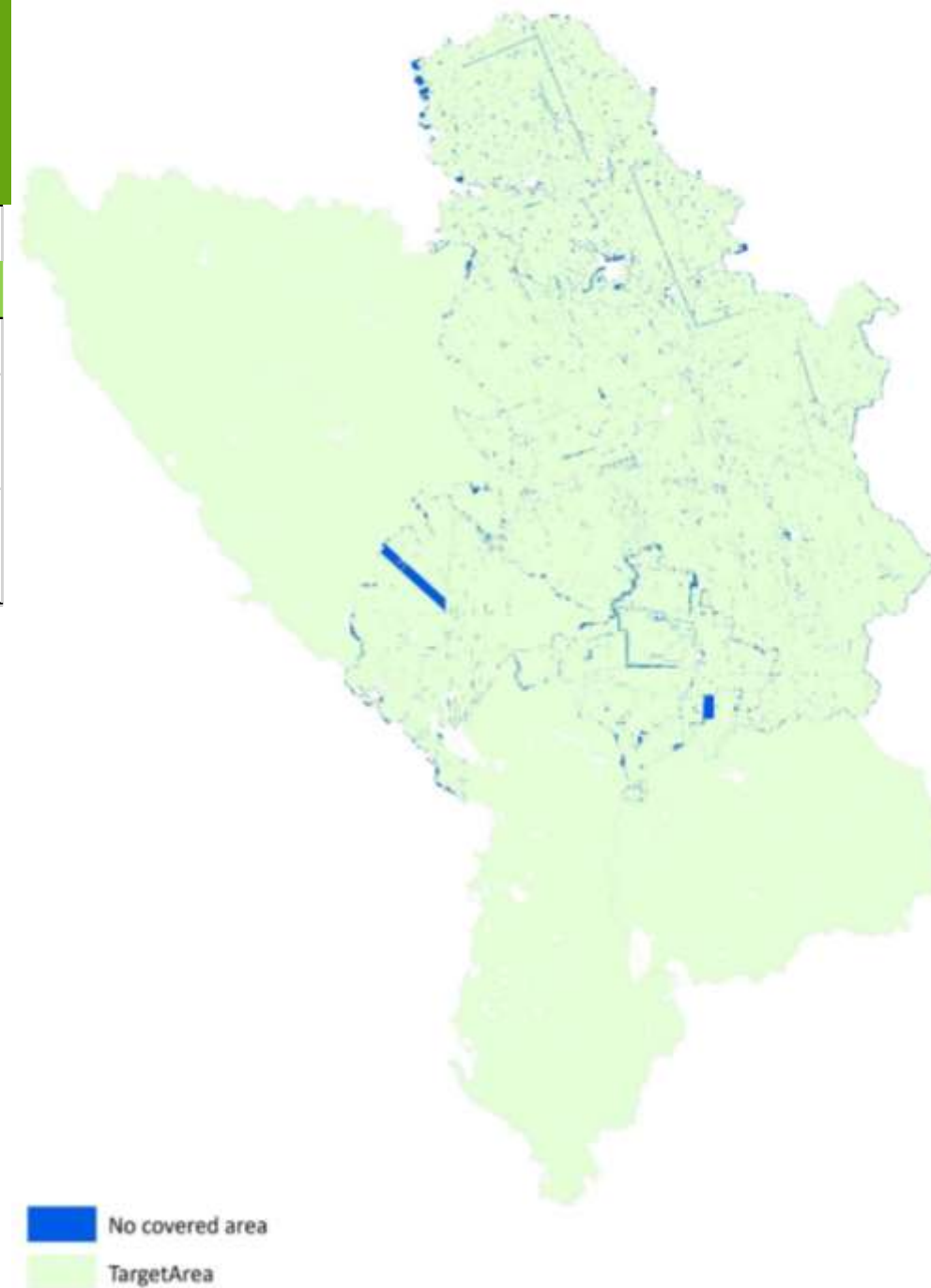
2019 Autumn ORV

2019 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)			23.06	20.4		22.1
Distance between baits (median in metres)			82	95		88
Non-covered target area (in %)			5.3	5.2		3.2



2019 Autumn ORV

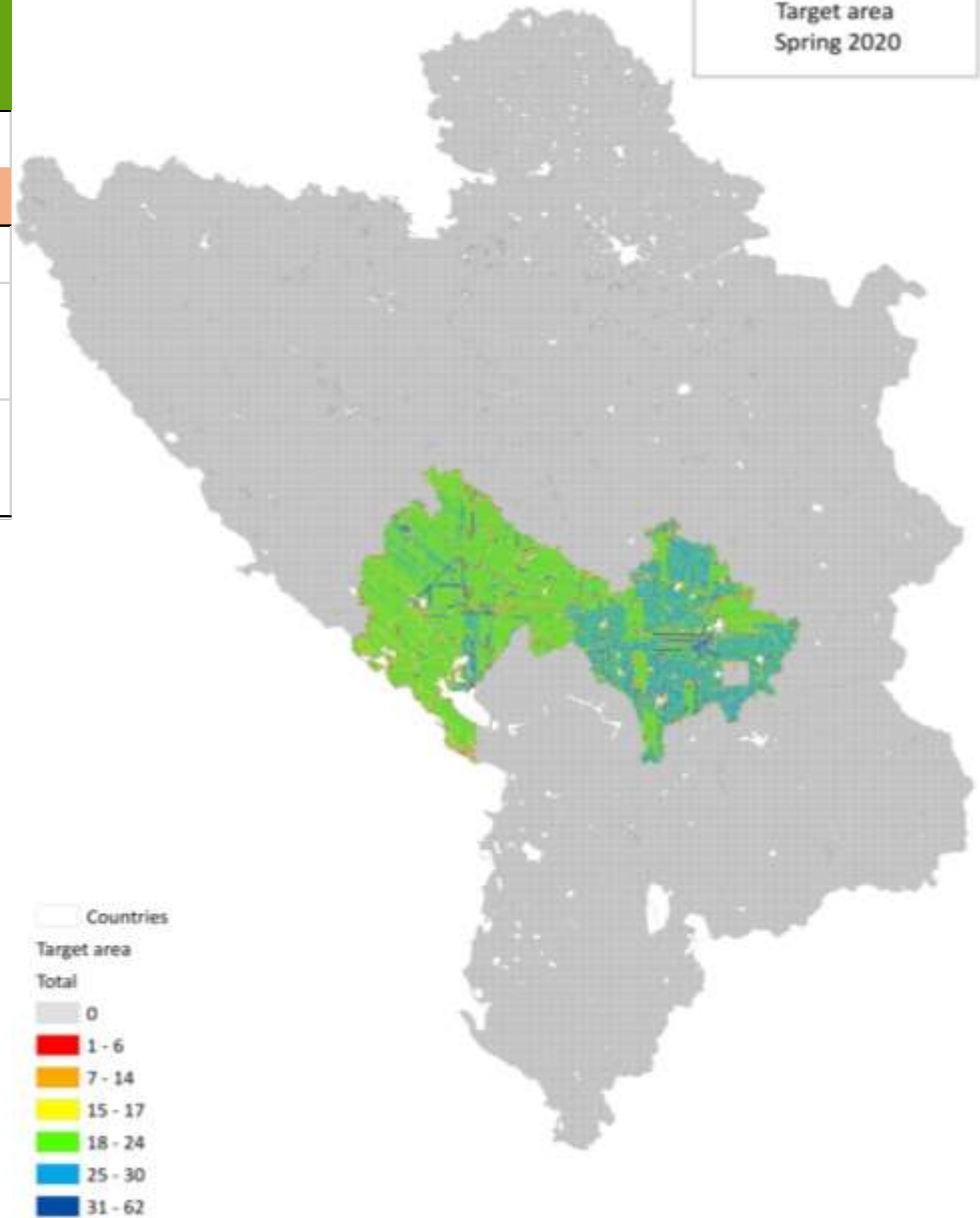
2019 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m2)			23.06	20.4		22.1
Distance between baits (median in metres)			82	95		88
Non-covered target area (in %)			5.3	5.2		3.2



2020 Spring ORV

2020 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)			22.8	20.3		
Distance between baits (median in metres)			82	96		
Non-covered target area (in %)			6.4	1.46		

Vaccination Campaign
 Cumulative day
 Bait density
 Target area
 Spring 2020



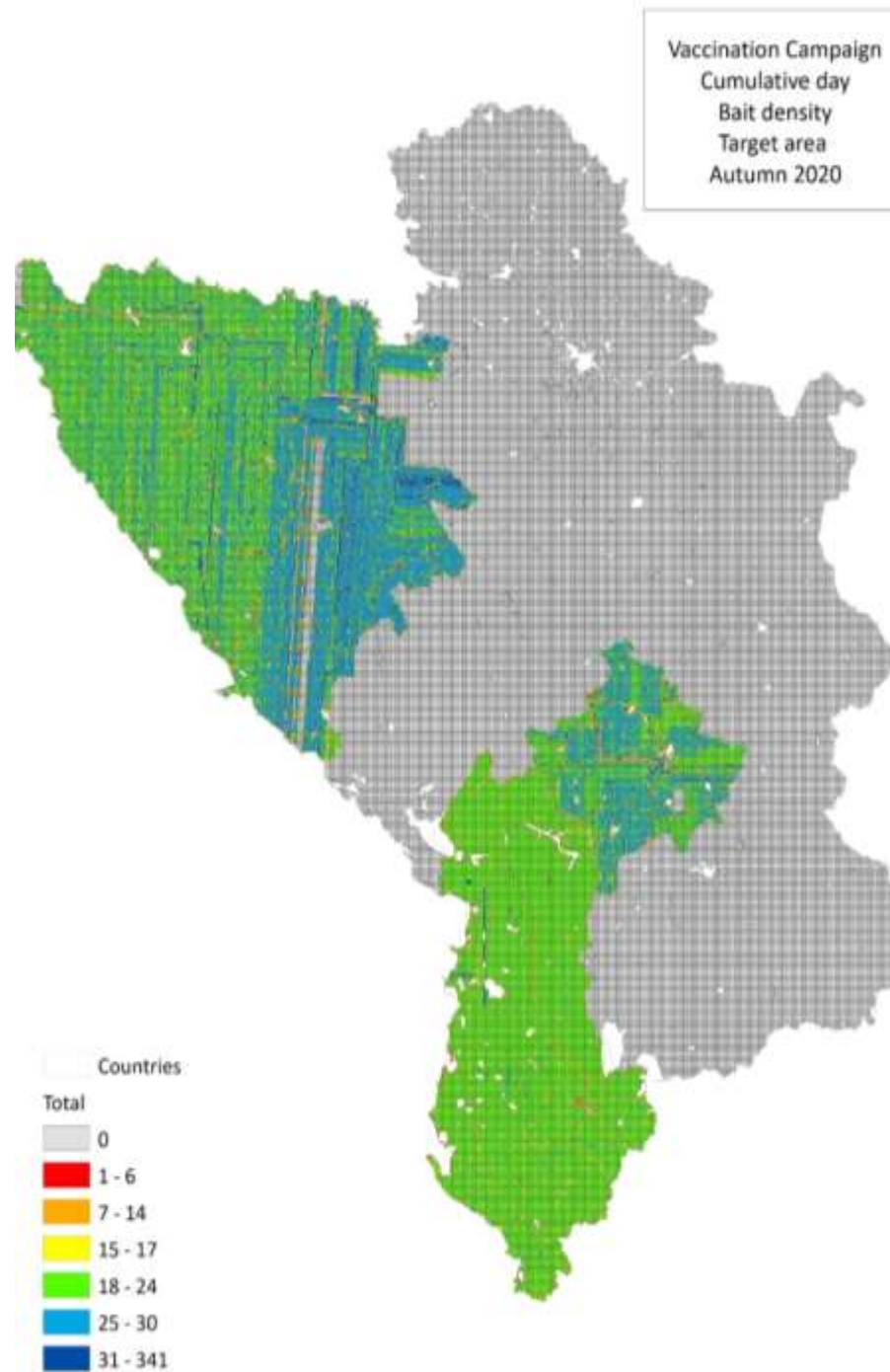
2020 Spring ORV

2020 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)			22.8	20.3		
Distance between baits (median in metres)			82	96		
Non-covered target area (in %)			6.4	1.46		



2020 Autumn ORV

2020 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	20.1	23	23			
Distance between baits (median in metres)	97.3	80.7	82.4			
Non-covered target area (in %)	1.79	24.7	5.33			



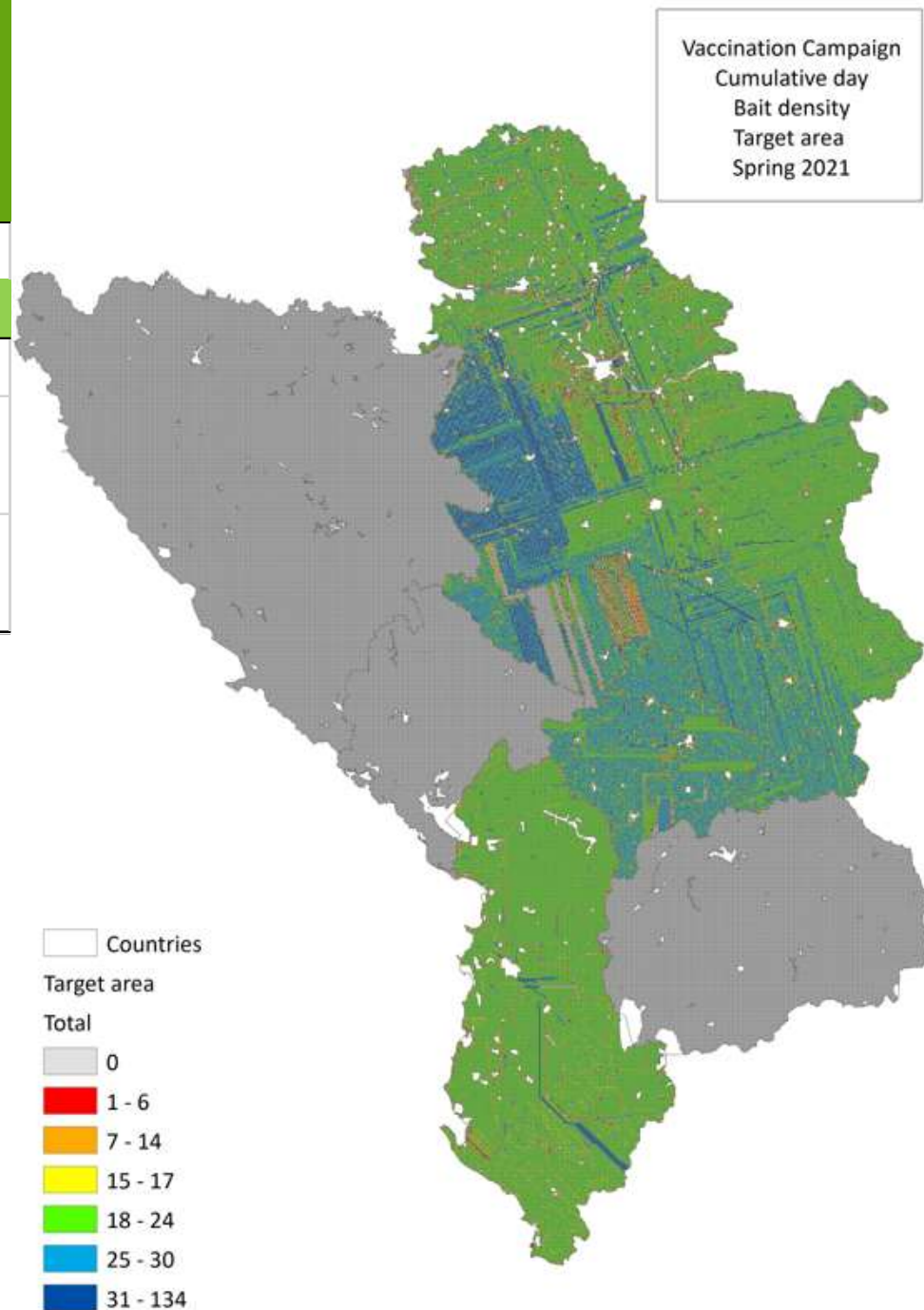
2020 Autumn ORV

2020 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented	■			■		
Bait density (baits/m ²)	20.1	23	23			
Distance between baits (median in metres)	97.3	80.7	82.4			
Non-covered target area (in %)	1.79	24.7	5.33			



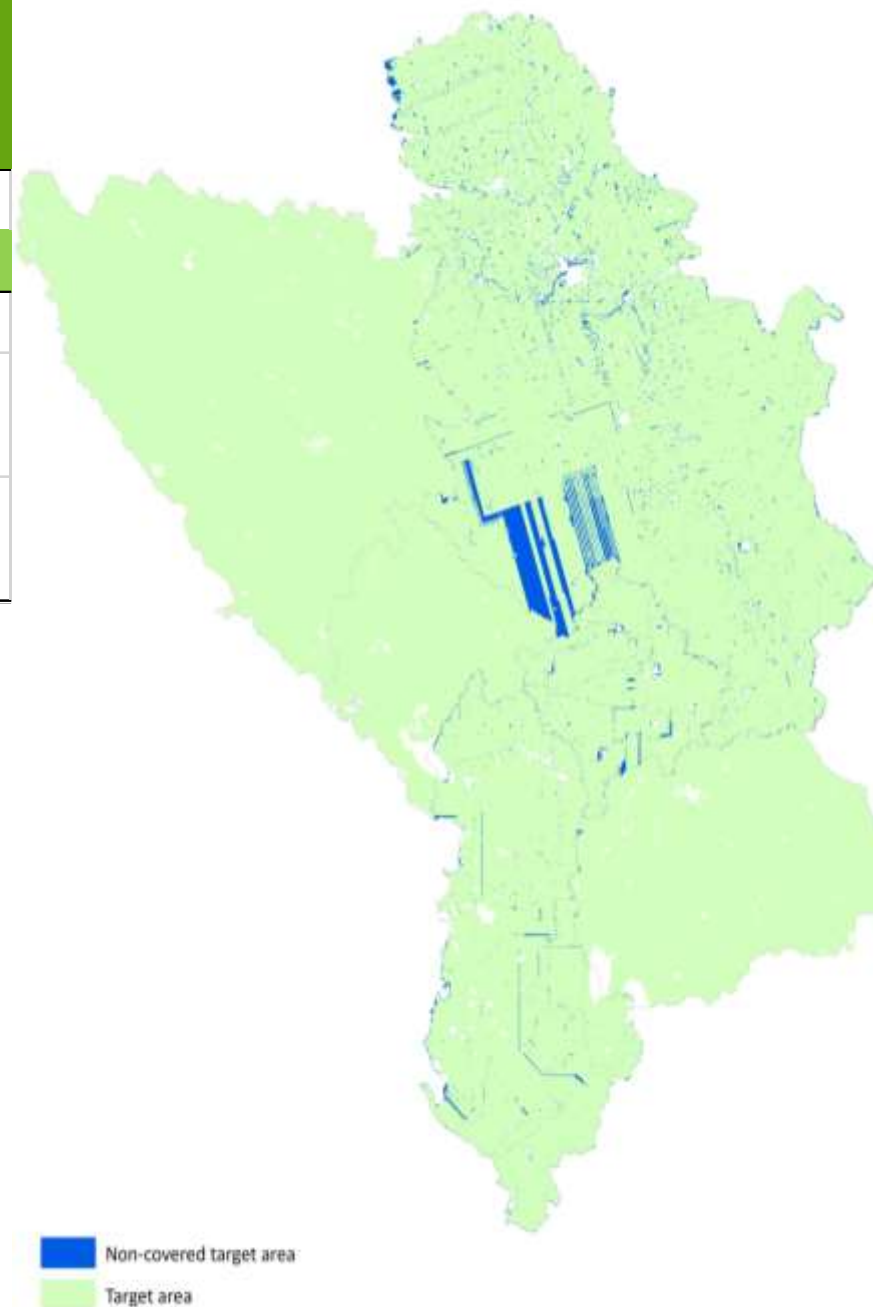
2021 Spring ORV

2021 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	19.5		23.5			22.4
Distance between baits (median in metres)	100		81			85
Non-covered target area (in %)	2.15		3.19			5.95



2021 Spring ORV

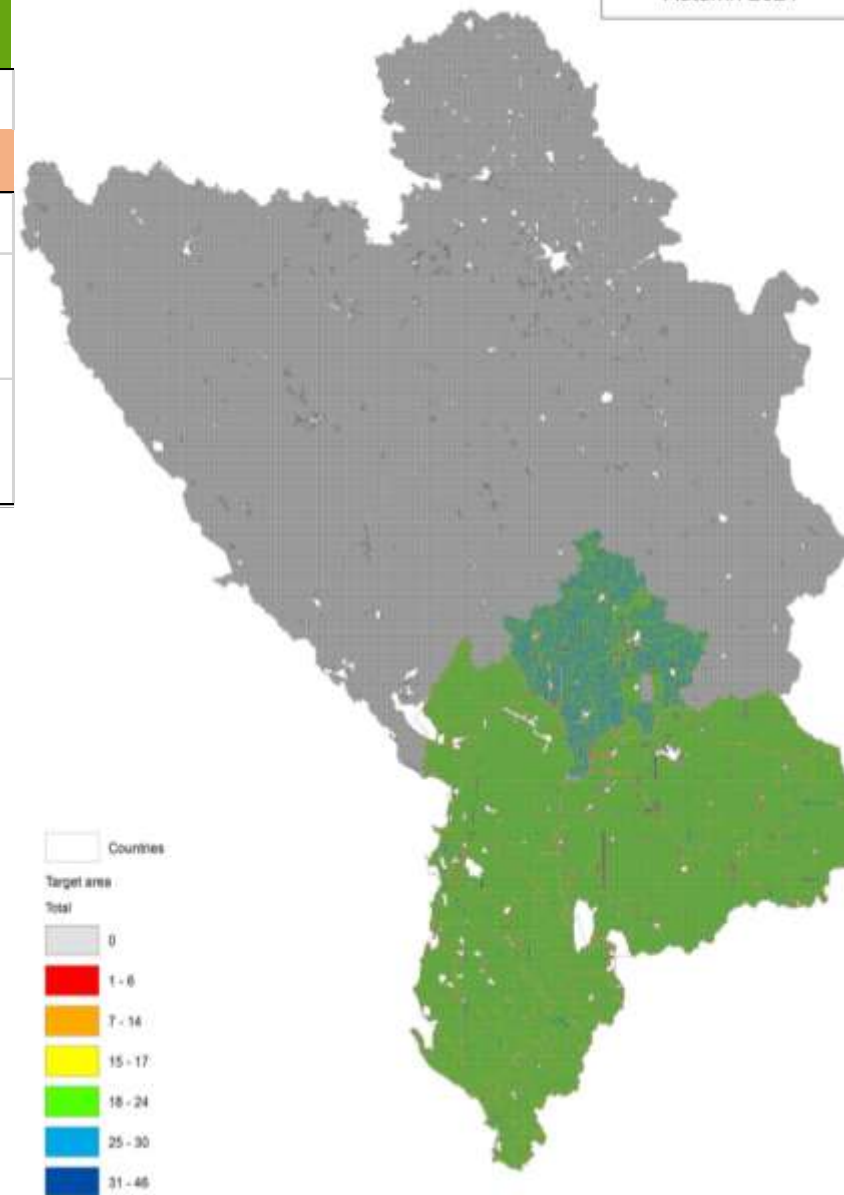
2021 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	19.5		23.5			22.4
Distance between baits (median in metres)	100		81			85
Non-covered target area (in %)	2.15		3.19			5.95



2021 Autumn ORV

2021 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	19.5		23.2		19.9	
Distance between baits (median in metres)	100		82.4		97.4	
Non-covered target area (in %)	1.49		3.83		2.39	

Vaccination Campaign
Cumulative day
Bait density
Target area
Autumn 2021



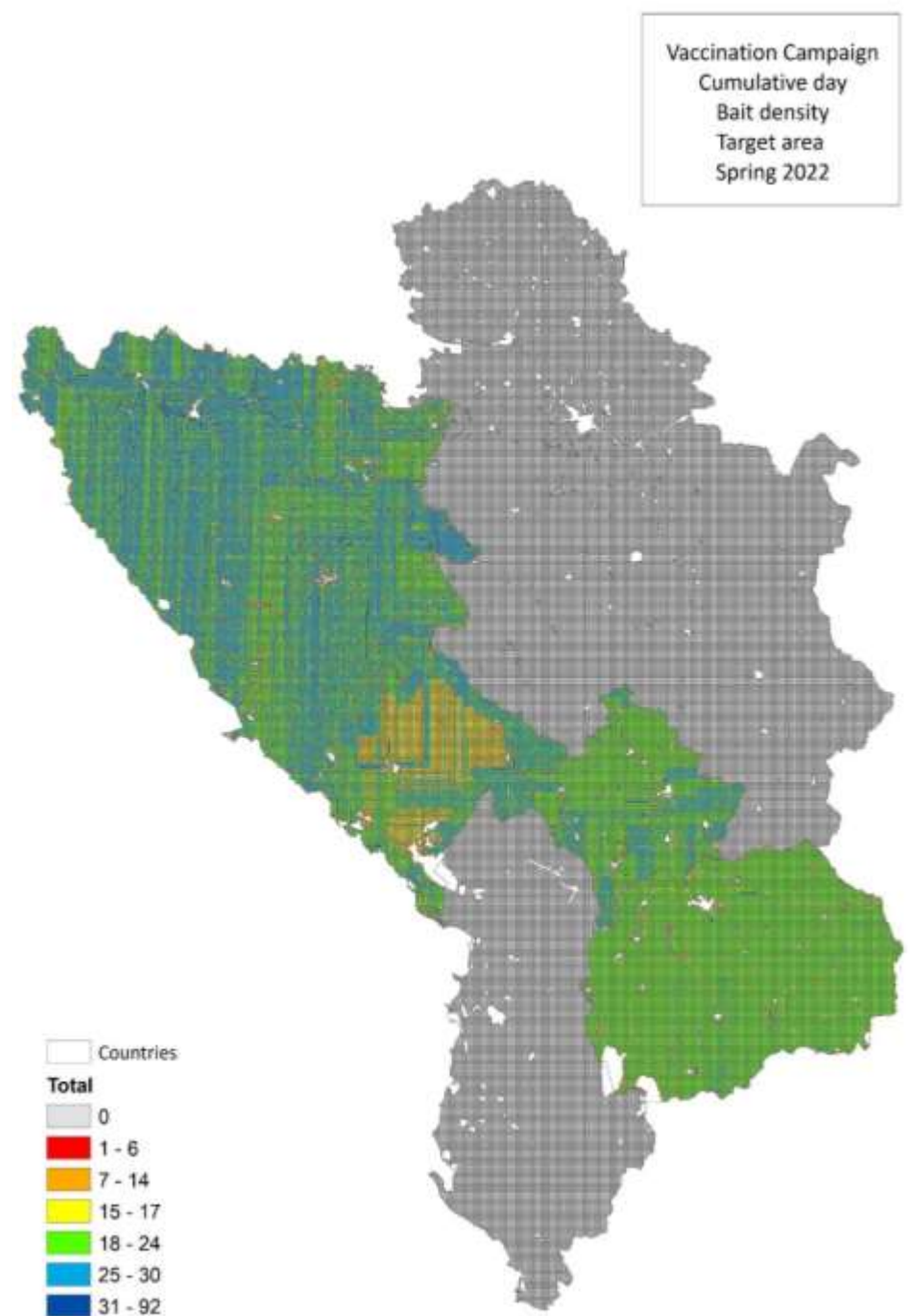
2021 Autumn ORV

2021 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	19.5		23.2		19.9	
Distance between baits (median in metres)	100		82.4		97.4	
Non-covered target area (in %)	1.49		3.83		2.39	



2022 Spring ORV

2022 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)		24.1	22.72	20.3	21.19	
Distance between baits (median in metres)		91.9	84	84	91	
Non-covered target area (in %)		1.08	2.54	2.19	2.28	



2022 Spring ORV

2022 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)		24.1	22.72	20.3	21.19	
Distance between baits (median in metres)		91.9	84	84	91	
Non-covered target area (in %)		1.08	2.54	2.19	2.28	

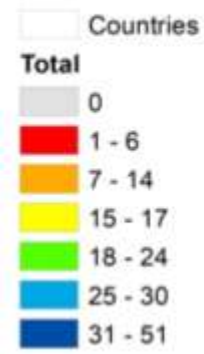
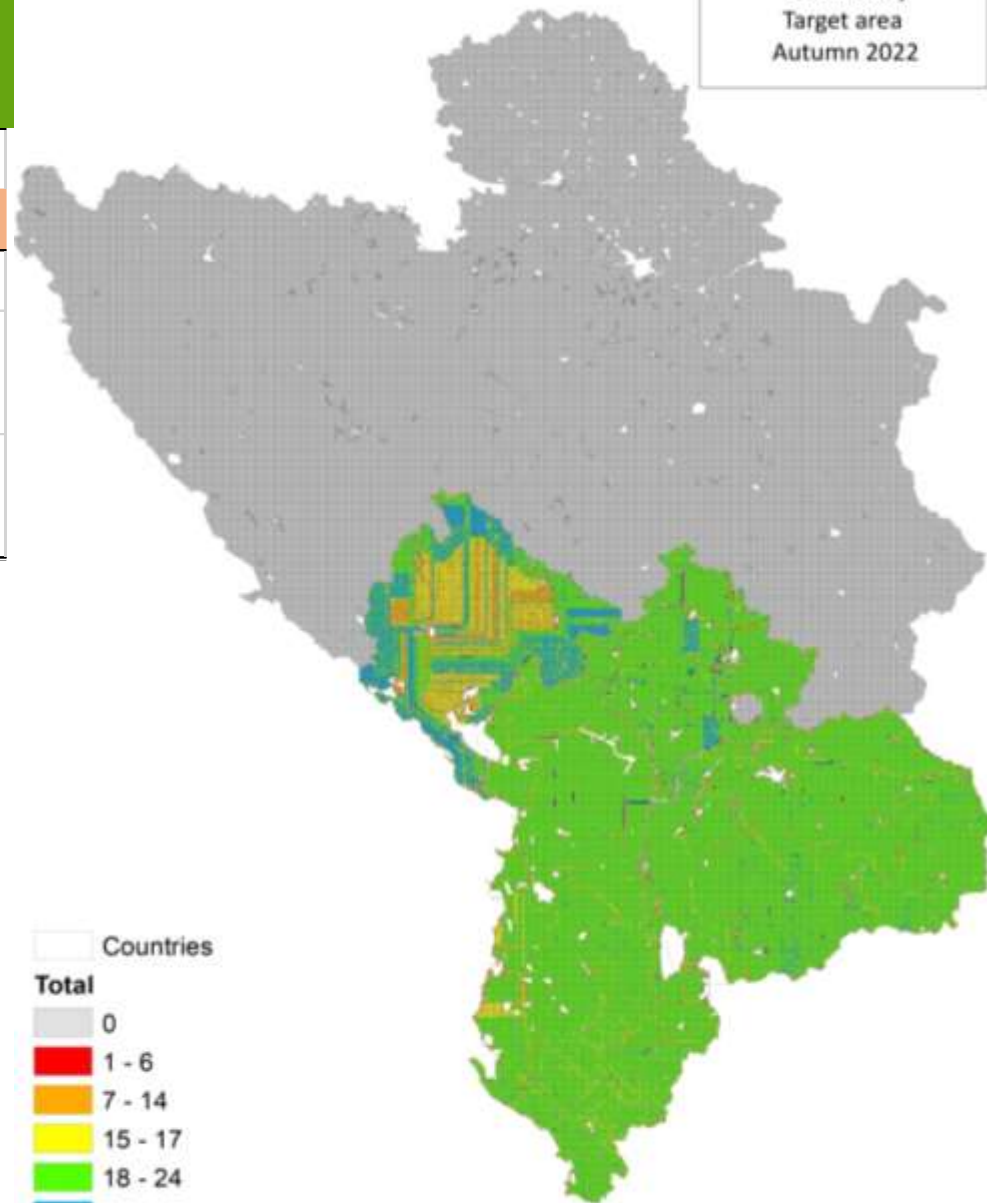


■ Non - covered area
■ Countries
■ Target area

2022 Autumn ORV

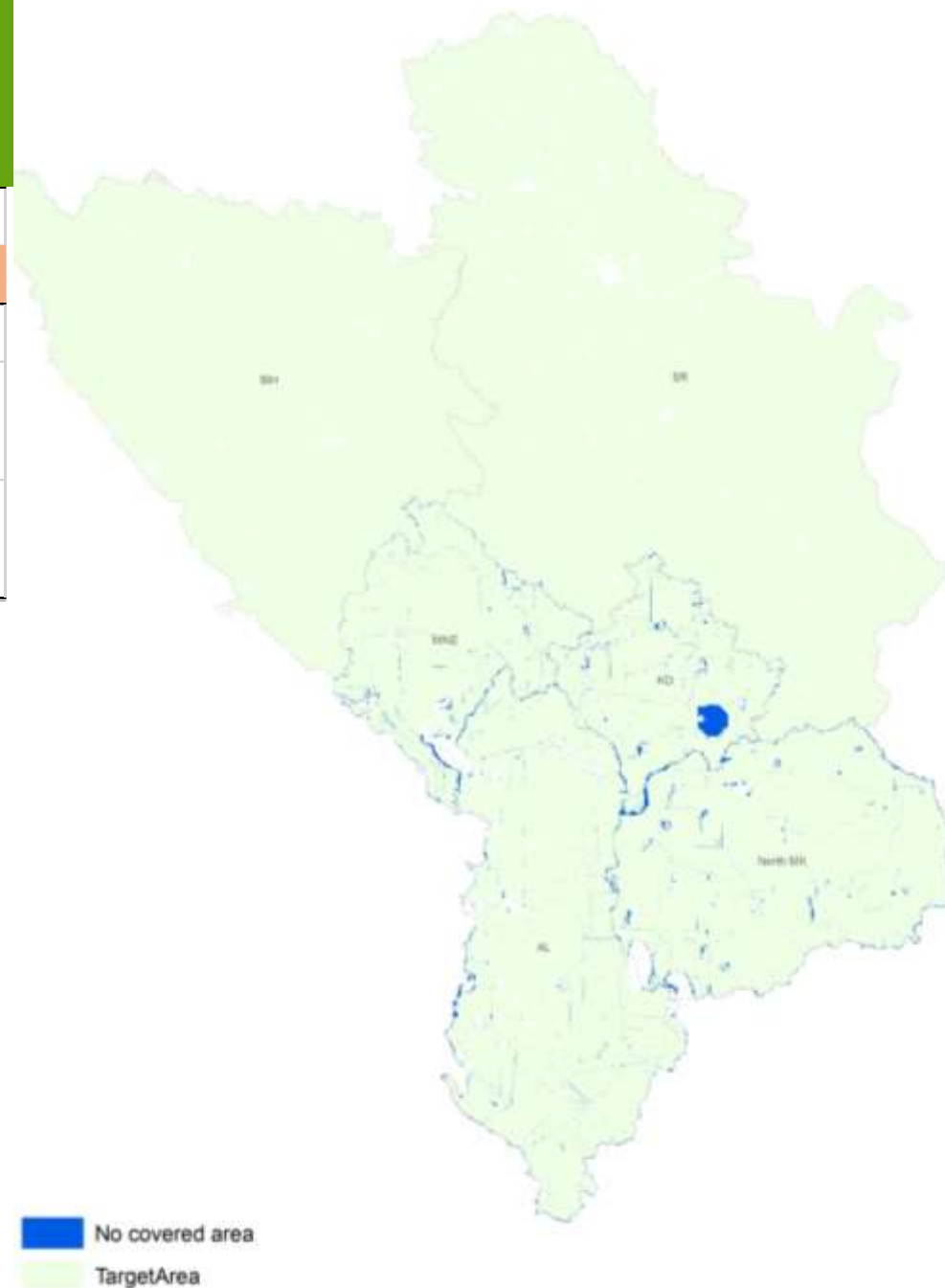
2022 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	20.06		21.8	20.3	21.19	
Distance between baits (median in metres)	97		86	87	91	
Non-covered target area (in %)	1.65		5.53	2.37	2.31	

Vaccination Campaign
Cumulative day
Bait density
Target area
Autumn 2022



2022 Autumn ORV

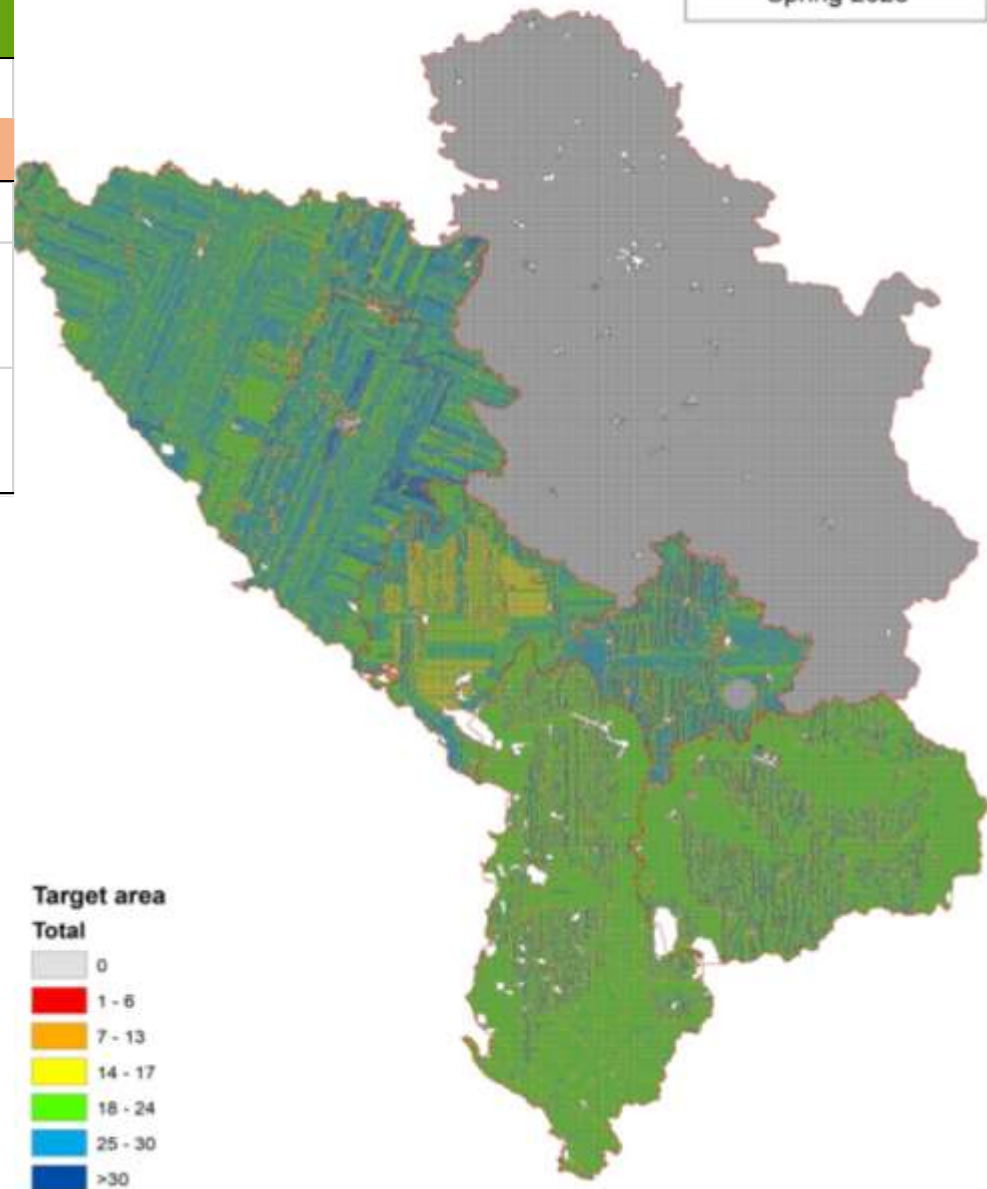
2022 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m2)	20.06		21.8	20.3	21.19	
Distance between baits (median in metres)	97		86	87	91	
Non-covered target area (in %)	1.65		5.53	2.37	2.31	



2023 Spring ORV

Vaccination Campaign
 Cumulative day
 Bait density
 Target area
 Spring 2023

2023 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m2)	19.59	23.89	23.22	19.87	20.77	
Distance between baits (median in metres)	98	98	80	87	93	
Non-covered target area (in %)	1.71	1.67	7.46	2.8	3	



2023 Spring ORV

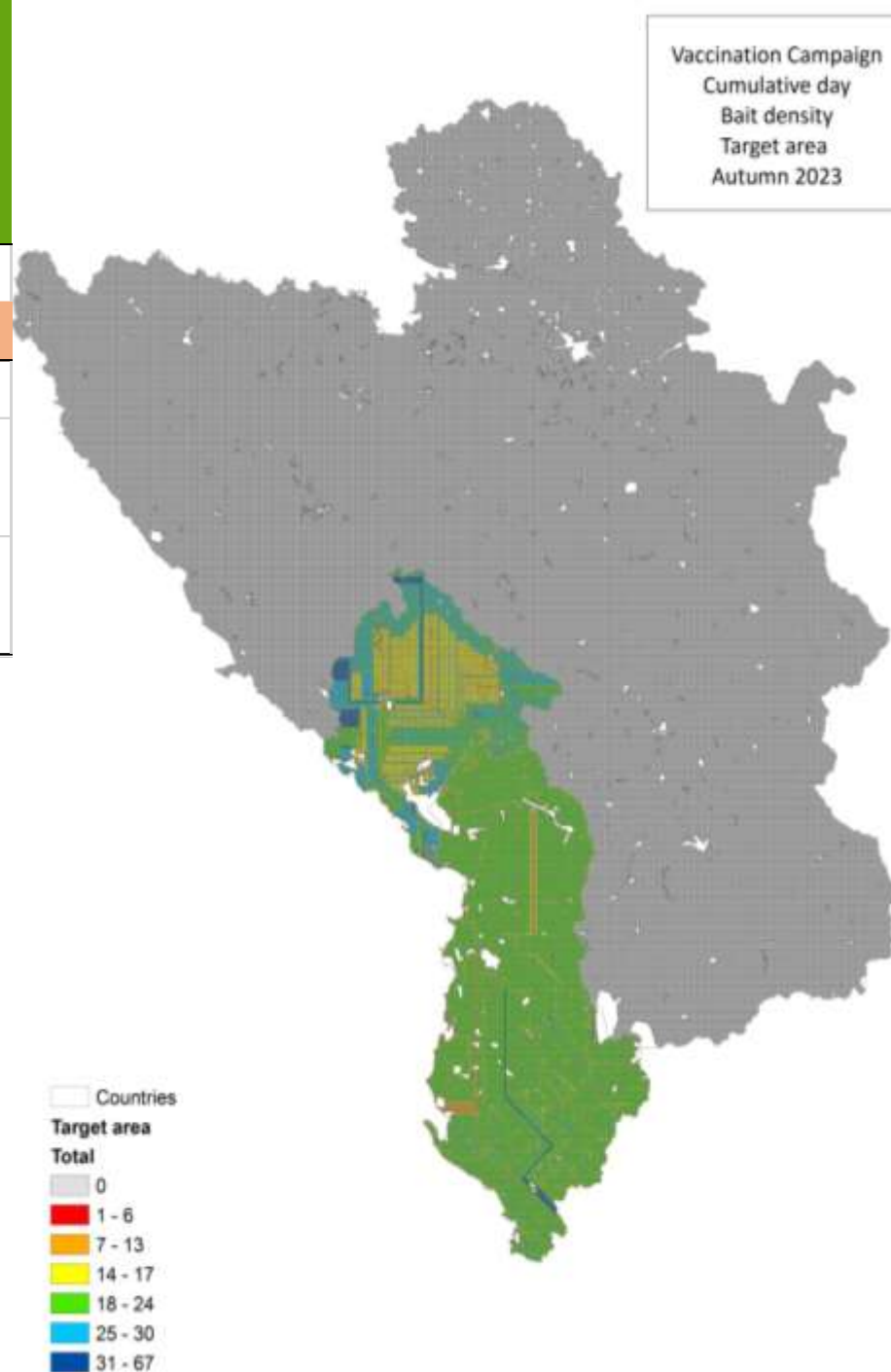
2023 Spring	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	19.59	23.89	23.22	19.87	20.77	
Distance between baits (median in metres)	98	98	80	87	93	
Non-covered target area (in %)	1.71	1.67	7.46	2.8	3	



■ Noncovered area
■ Target Area

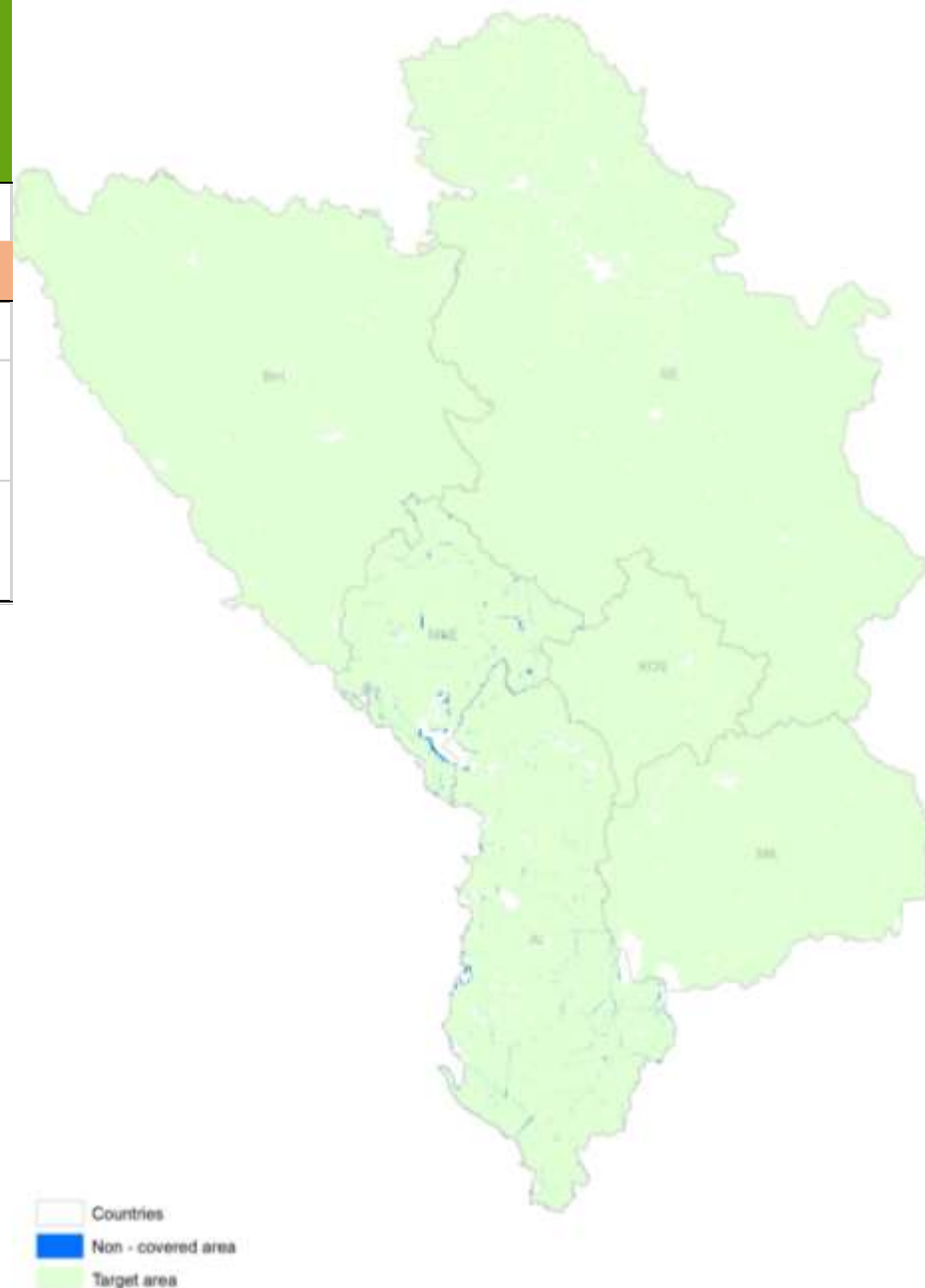
2023 Autumn ORV

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2023 Autumn ORV

2023 Autumn	AL	BiH	KO*	MN	MK	RS
ORV implemented						
Bait density (baits/m ²)	20.1			21.1		
Distance between baits (median in metres)	93			86		
Non-covered target area (in %)	1.37			2.33		



Conclusions ORV 2017 – 2023



- When implemented, ORV campaigns meets the general requirements for bait density and uniformity of distribution of vaccine baits
- Only rarely, all Western Balkan countries implemented ORV campaign simultaneously
- Frequently, there are gaps in bait distribution, but these were not repeated consecutively
- Bait distribution near borders was satisfactory

Recommendations

- More sustainable planning and implementation of ORV is needed, considering also the regional coordination
- Close monitoring of implementation is required to timely notice eventual gaps and implement remedies and avoid repetition of such inconsistencies, including post vaccination monitoring



Special thanks to competent authorities of Western Balkan countries



- Albania: Ali Lilo and Keti Margariti
- Bosnia and Herzegovina: Sasa Boskovic and Aleksandar Nemet
- Kosovo*: Sadik Heta and Bafti Murati
- Montenegro: Mevlida Hrapovic, Suncica Boljevic and Milan Rogosic
- North Macedonia: Svetlana Tomeska Mickova
- Serbia: Boban Djuric

Thank you for your attention

“Capacity building of veterinary and plant health services in the Western Balkans - Lot 1 - Animal Health” - **ADEWB II**

SANTE/2022/EA-OP/0001



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