Report on the Results of the Baseline Survey in 124 Districts

The Baseline Survey was conducted by CMAC, HALO Trust and MAG

Under the Coordination of the CMAA

Prepared by the Cambodian Mine Action and Victim Assistance Authority (CMAA)

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Foreword

The results of the Baseline Survey (BLS) clearly indicate that Cambodia still suffers from the consequences of landmines and ERW contamination. This scourge is a result of decades of conflict, beginning with anti-colonial war and continuing with factional fighting that just ended in the late 1990s.

A national Level 1 Minefield Survey project was completed since 2002 with the best information available at the time it was collected. Due to the fact that the Level 1 Minefield Survey was out of date and its level of threat was no longer accurate resulting from land pressure activities by the poor and landless people, its data could not be used for any planning purposes. To better quantify the remaining challenges of the landmine/ERW contamination for the Request for Extension under the Article 5 of the Ottawa Convention, the BLS was initiated by Cambodian Mine Action and Victim Assistance Authority (CMAA) and implemented by the main accredited operators namely CMAC, The HALO Trust and MAG. As planned, the BLS was successfully completed in 124 target districts in late 2012. The CMAA plans to continue the BLS inside the eastern districts with high bombing contamination to better understand the overall magnitude of landmine/ERW contamination throughout the country.

The main objective of the BLS is to allow all actors in mine action to utilize the BLS data/information for efficient and effective planning and well targeting of their mine/ERW operation, funding and resources in Cambodia. The BLS data will also enhance prioritization for the three operational pillars of mine action – Mine Risk Education, Victim Assistance and Land Release. In addition, the Royal Government of Cambodia will take stock of the data to expedite and target funding and resources to relieve immediate hazards, as well as support other social, economic, and reconstruction efforts.

This survey is a national asset which I hope will pragmatically give guidance and confidence to all of us involved in the mission to deal with the mine/ERW threat in Cambodia. The CMAA and relevant stakeholders have been making a concerted effort to make a greater stride toward reaching their goal of complying with the Ottawa Convention and establishing Cambodia as a mine free country.

Taking this opportunity, I wish to address my special thanks to the development partners, local authorities and demining organizations, both local and international, for their kind assistance, trust and support.

Phnom Penh, 10th September, 2013

Prak Sokhonn
Minister of Posts and Telecommunications
Vice President of the CMAA

Executive Summary

Humanitarian mine clearance in Cambodia started in 1992 under financial support from the United Nations. In late 2000, with financial support from the Government of Canada, a Level 1 Minefield Survey project was launched and the project concluded in April 2002. The Survey results show that 46% of Cambodia's villages were contaminated and the contaminated lands covered 4,544 km^2.

As part of its extension request of the ten-year deadline to clear all anti-personnel mines under the Article 5 of the Anti-Personnel Mine Ban Convention (APMBC), CMAA and the mine action stakeholders in Cambodia decided to conduct a comprehensive Baseline Survey under the coordination of the CMAA. The objective was to better define the magnitude of the remaining contamination by defining the boundaries of contaminated/suspected lands and to classify the lands according to the nature of the contamination in a consistent/standardized manner.

With financial support from development partners, the actual deployment of the Baseline Survey teams started in August 2009 to firstly target 21 most mine affected districts and then gradually expanding to the remaining districts. By end of 2012, the Baseline Survey had been conducted in 124 districts by three operators, CMAC, HALO Trust and MAG.

Baseline Survey of the 124 districts revealed that 1,915 Km^2 of land surface is still contaminated by landmines and ERW. The most affected provinces are Battambang, OddarMeanchey, BanteayMeanchey and PreahVihear. Based on existing experience, about 35% of the contaminated land would be released through non-technical and technical survey and about 65% would be released through full clearance. However, we expect that the percentage of land to be released through non-technical and technical survey would be increased and the percentage of land to be released through full clearance would be decreased when the operators are gaining more and more practical experience.

Cambodia is not only contaminated by landmines, but also ERW (including cluster munitions),as such, the CMAA plans to conduct Baseline Survey in the eastern districts that are believed to be contaminated mainly by ERW in the coming years to better understand the entire magnitude of contamination.

1. Background and the Need for Baseline Survey

Humanitarian mine clearance in Cambodia started in 1992 with financial support from the United Nations. After the signing of the Paris Peace Agreement between the warring factions in 1991, the clearance aimed first at supporting the resettlement of hundreds of thousands of Cambodian refugees to be repatriated from refugee camps along the Cambodian-Thai border. When the resettlement of the refugees was scaling down, the clearance continued to support resettlement of internally displaced persons, expansion of agriculture lands, and infrastructure reconstruction and development projects with financial support from international community.

In late 2000, with financial support from the Government of Canada, a landmine survey project that is known as Level 1Survey project was launched and the project concluded in April 2002. The Survey results show that 46% of Cambodia villages were contaminated and the contaminated lands covered 4,544 km^2.

When preparing the request for an extension of the ten-year deadline to clear all anti-personnel mines under the Article 5 of the Anti-Personnel Mine Ban Convention (APMBC) in 2008, the Cambodian mine action sector (authority, operators and development partners) realized that it did not have the necessary information on the location and the size of the remaining contamination as the data from the Level 1 Survey was obsolete and could not be used for any future planning purpose.

As a result, in late 2008, the CMAA and key stakeholders of the mine action sector in Cambodia came together and agreed that a comprehensive Baseline Survey was needed to be conducted under the coordination of the CMAA in order to better define the magnitude of the remaining contamination. The Baseline Survey was to define the boundaries of contaminated/suspected areas and to classify land according to the nature of the contamination in a consistent/standardized manner. The Baseline Survey was to commence as soon as possible and to survey all villages in 124 districts where the Level 1 Survey had reported landmine and ERW contamination. It was also agreed that the results from the Baseline Survey would supersede Level 1 and other previous survey data.

2. Baseline Survey Protocol

Prior to the commencement of Baseline Survey, all clearance operators conducted their own surveys to support their clearance operations. As such, there were discrepancies in their survey methodologies and standards that impacted the survey results due to the lack of consistent national protocol to guide the surveys.

Based on this experience, a national Baseline Survey Protocol/Standard and a survey questionnaire were established to ensure consistent/standardized survey results. As such, the CMAA called for meetings with all clearance operators to draft the Baseline Survey Standard. Based on the Baseline Survey Standard, the clearance operators having survey capacity developed their own Baseline Survey Standard Operating Procedures (SOPs) and subsequently retrained their survey teams.

When the Baseline Survey SOPs have been drafted and the survey capacity/teams retrained, the CMAA ordered all operators to conduct a field trial in order to gain practical experience to further improve the Standard and the survey questionnaire and to see whether the survey results from different operators were consistent or standardized. The CMAA QA teams were also involved in monitoring the field trial and provided recommendations for further improvement.

After gaining practical experience from the field trial, the CMAA led a review to fine-tune the Baseline Survey Standard and the survey questionnaire with three operators (CMAC, HALO Trust and MAG) involvement and subsequently the Baseline Survey Standard was endorsed for implementation in mid-2009.

3. Baseline Survey Implementation

With financial support from development partners, the actual deployment of the Baseline Survey teams started in August 2009 and initially targeted the 21 most landmine affected districts and gradually expanding to the remaining districts. The plan was to complete Baseline Survey of 124 districts by end of 2012.

To ensure the quality of the collected data, the CMAA quality assured survey activities as well as all data received from the operators conducting the Baseline Survey. Practically, the Baseline Survey activities can be summarized in the following four steps:

Step 1 (Preparation): the survey team collects information and data from Level 1 survey and previous surveys for reference, organizes logistical support, operational equipment and deploys to the target villages.

Step 2 (Village meeting): during this step the survey team organizes a meeting within the village to collect local information from key informants (village chiefs, mine accident survivors, former soldiers, people living close to minefields etc.). The purpose of this meeting is to capture contaminated areas known to the villagers.

Step 3 (Physical survey): with information collected during the Step 2, the survey team invites relevant key informants to physically visit the areas that the key informants know of. During this step, the survey team may involve other key informants to confirm the location and the nature of contamination. Intrusive survey may be applied at this stage for conformational purpose. Geographical information of the contaminated area is recorded and the survey questionnaire is completed.

Step 4 (Village feedback): when the physical survey (Step 3) within the village has been completed, the survey team organizes a village meeting again to present their findings. If the villagers inform that there is a suspected mined area that have not been captured by the survey team, then the survey team will take the informant to visit the area and start activities as stated at Step 3. It is to note that before the survey team leaves the village to go to the next one, the survey team keeps a sketch map showing all contaminations with the village chiefs for their use/reference in the future.

Baseline Survey Working Process

Step 1: Preparation

Step 2: Village meeting

Step 4: Village feedback

Step 3: Physical survey

Quality Assurance on Baseline Survey

CMAA BLS Teams monitored on BLS operations

CMAA BLS Team and Unit, within R&M Department investigated and solved the BLS problems

Table-1: Number of district where Baseline survey was completed in each phase.

Phase	Operators Conducting Baseline Survey				
	CMAC	HALO Trust	MAG	CMAC/HALO	Total
1 (Aug 2009-Dec 2010)	14	7	2	N/A	23
2 (Jan-Dec 2011)	17	20	4	3	44
3 (Jan-Dec 2012)	41	12	4	N/A	57
Total	72	39	10	3	124

4. Results of the Baseline Survey

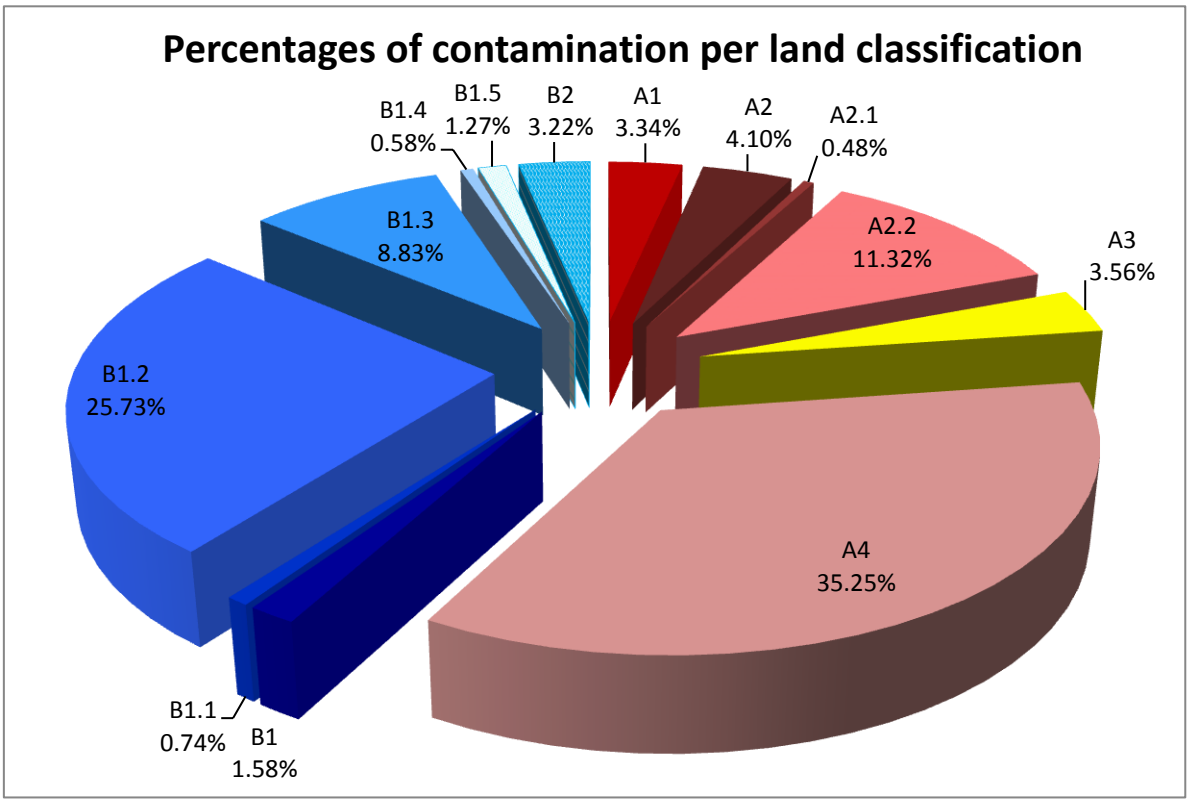
Baseline Survey of the 124 districts revealed that 1,914,818,720 m^2 of land surface is still contaminated by landmines and ERW (see the table 2 below).

Table 2: Level of contamination by land classification

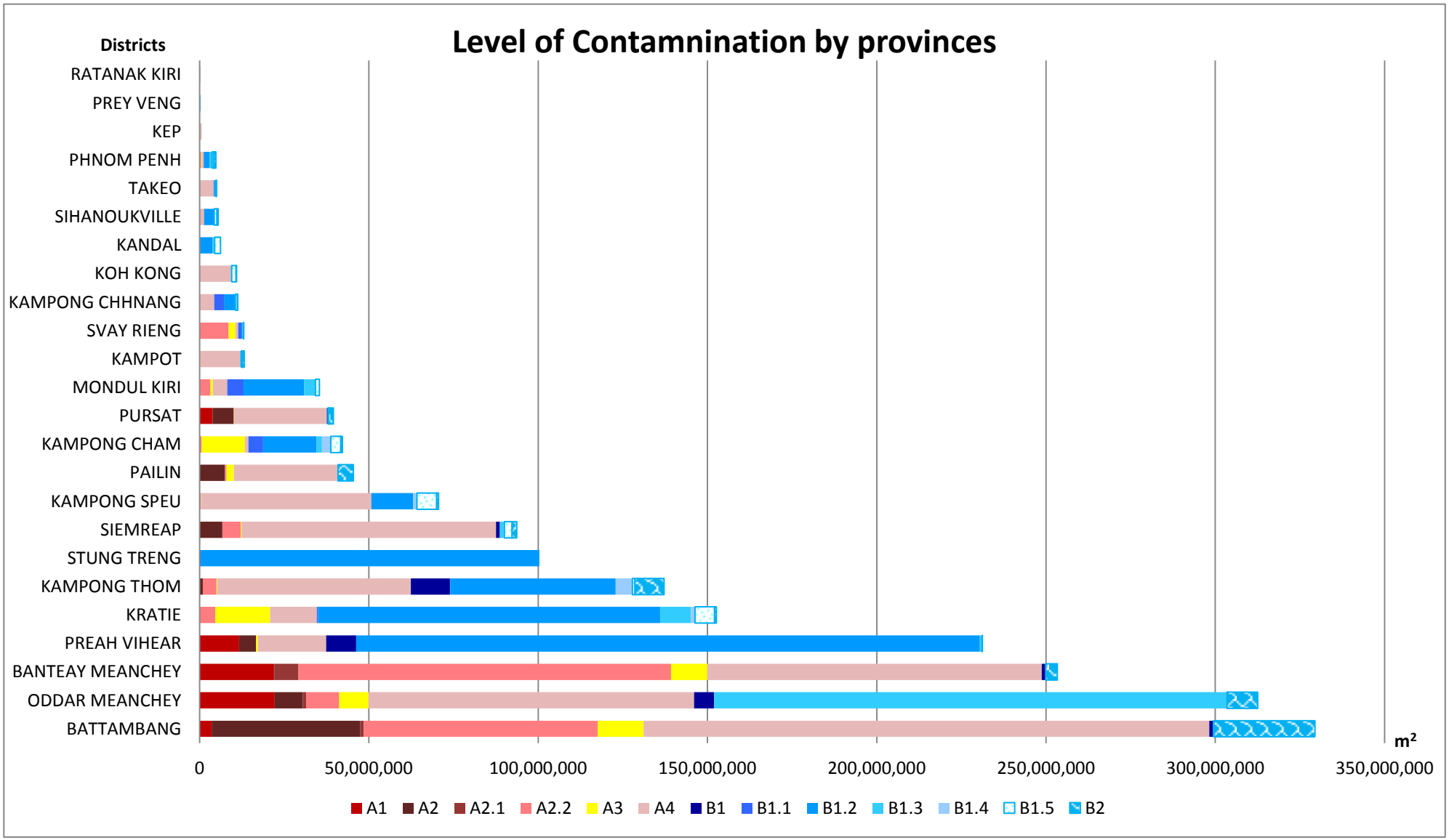
Land classification	Number of polygon	Area (m^2)
A1	871	63,894,629
A2	1,112	78,601,787
A2.1	155	9,154,925
A2.2	2,833	216,840,425
A3	1,338	68,187,332
A4	6,673	674,882,897
B1	171	30,201,200
B1.1	93	14,138,219
B1.2	1,002	492,661,111
B1.3	208	169,008,775
B1.4	146	11,174,290
B1.5	289	24,382,419
B2	687	61,690,712
Total	15,578	1,914,818,720

Note: please refer to land classification standard attached at Annex 1 for definition of each land classification.

The chart below shows the percentagesof contamination per land classification.



The bar indicates the level of total contamination by province



Note: This graph cannot present a complete picture of contamination as there are a number of districts in the eastern provinces to be surveyed. As such, Ratanak Kiri is seen with little contamination.

5. Challenges faced

The main challenges faced during the implementation of Baseline Survey within the three phases were the lack of reliable informants for some villages, the remoteness of some villages and restricted access to some areas along the Cambodian-Thai borders. The lack of the reliable informants and the remoteness of the areas prolonged the time spent on Baseline Survey in some villages. Access to some areas along the Cambodian-Thai borders was restricted due to border security situation between the two countries, thus these areas have not been surveyed. Great efforts have been made by the two countries to demarcate the borderline. Due to complexity of identification and demarcation of borderline, time is required to address the matter. CMAA will continue to monitor this situation and Baseline Survey of these areas will be conducted when the security situation in these areas permits.

6. Next Step

With substantial funding from development partners, by end of 2012, Baseline Survey of the 124 target districts as defined in the Extension Request had been completed as planned. There remain a number of districts mainly contaminated by ERW in the eastern provinces where Baseline Survey needs to be conducted. CMAA plans to conduct the Baseline Survey in these districts in the coming years. With this being said, the CMAA will develop a proposal to seek development partners' funding to support Baseline Survey in these districts. Development partners are kindly requested to consider funding the proposal to enable Cambodia to complete Baseline Survey throughout the country to better understand the entire contamination. The Baseline Survey information and data are useful for prioritizing interventions.

Attachments:

Annex 1: Land Classification Standard

Annex 2: Level of contamination by province

Annex 3: Map of districts where Baseline Survey had been conducted

Annex 4: Contamination per province

LAND CLASSIFICATION STANDARD

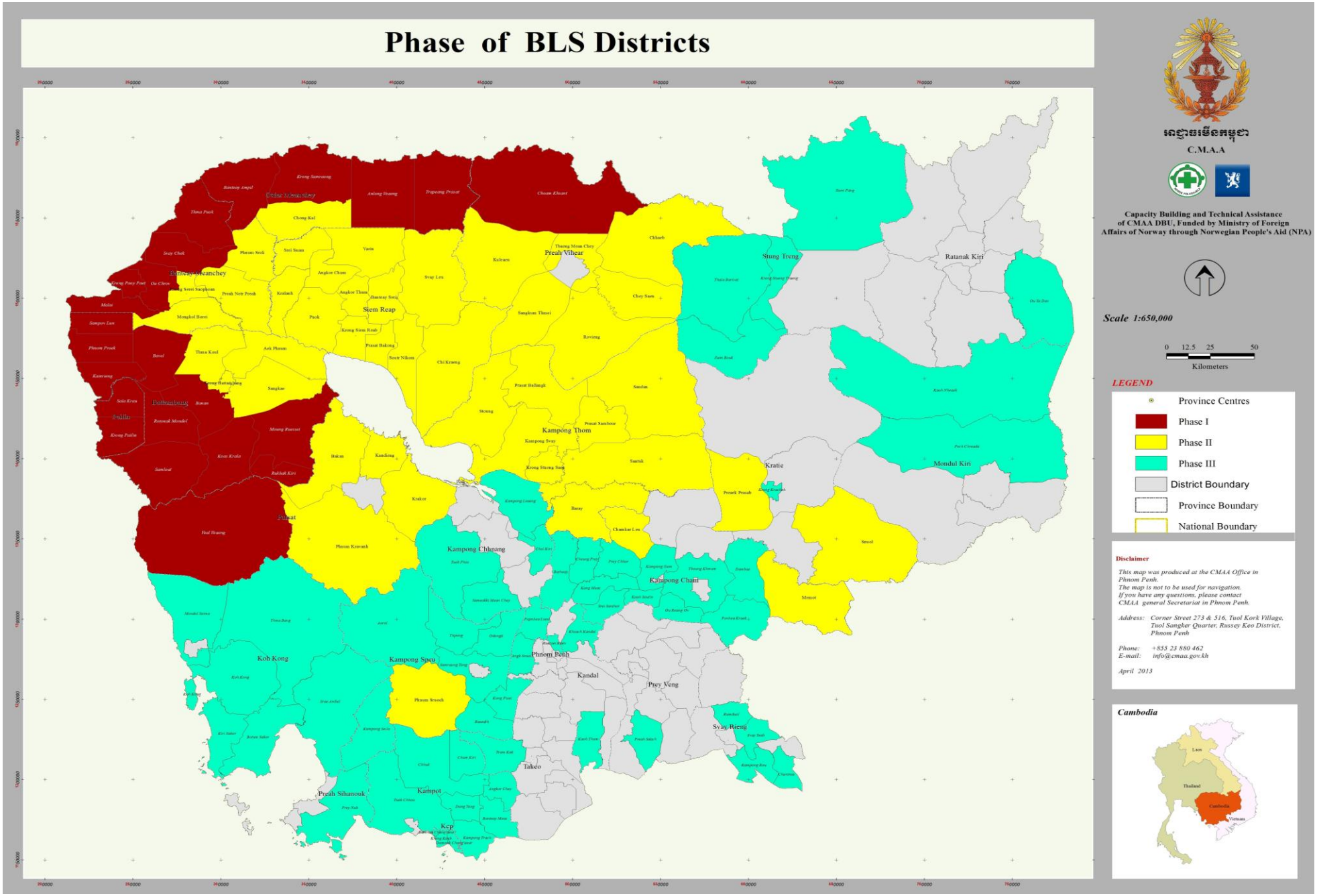
CLASSIFICATION	SUB-CLASSIFICATION	SUB-CLASSIFICATION DETAILS	REMARKS
A (Mined Area) Land that presents evidence of mines	**A1:** Land containing dense concentration of AP mines	Strategically located, logical patterns of protective, defensive or denial mine laying such as mine belts, mines along road alignment, borders, military bases, and other infrastructures.	Deployment of humanitarian clearance resources should be concentrated on A1-A3 land provided it addresses community priorities. All polygons should be further investigated to delineate the perimeter of the mined area before deployment of full humanitarian clearance assets. Allocation of clearance assets on A4 polygons should be limited to those where there is a development justification.
	A2: Land containing mixed AP and AT mines		
	A2.1: Land containing mixed dense AP and AT mines		
	A2.2: Land containing mixed scattered AP and AT mines	Land that is not in productive use with limited presence of AP and AT mines laid in a non-defined manner.	
	A3: Land containing AT mines	In-use or abandoned route alignment presenting threat of AT mines.	
	A4: Land containing scattered or nuisance presence of AP mines	Land that is not in productive use with limited presence of AP mines laid in a non-defined manner.	
B (Residual Threat Land) Land that presents evidence of ERW or an indeterminate presence of mines	**B1:** Land containing ERW (not including mines)	Battle areas containing ERW. These areas are suitable for BAC.	Allocation of clearance assets on B land should be limited to those where there is a community requirement.
	B1.1: Land containing aircraft bomb	Bomb data or evidence that single aircraft bombs may be present.	
	B1.2: Land containing cluster munitions/bombies	Bombing data or evidence that an area contains cluster munitions or bombies.	
	B1.3: Location of Ground Battles	Areas containing evidence of ground fighting only.	
	B1.4: Land containing stockpiles/ caches	Locations where caches or stockpiles are existing.	
	B1.5: Abandoned military compounds	Locations which may be more highly suspected to contain munitions.	
	B2: Land with no verifiable mine threat	Previously suspected land that local populations are putting back into productive use. No accidents or evidence of mines for a period of 3 years will result in reclassification as C1.	
C (End State Land) Land that presents no obvious threat	**C1:** Reclaimed Land	Previously suspected land that has been put back into productive use without accident or evidence of mine in the past 3 years as per Cambodia Area Reduction Policy.	Deployment of humanitarian demining assets on this land should not be considered.
	C2: Land Released through Survey (BLS/TS)	Previously mined or suspected land where as a result of approved survey methodology no obvious threat remains.	
	C3: Cleared Land	Land formally cleared by accredited mine clearance operators adhering to the national standards (CMAS).	
	C4: Unmined Land	Land with no indication from local communities or previous survey to contain any mine threat.	

nex 2: Level of contamination by province

Province		Type of Contamination by Square meter (m^2)													Total
		A1	A2	A2.1	A2.2	A3	A4	B1	B1.1	B1.2	B1.3	B1.4	B1.5	B2	
BANTEAY MEANCHEY	**SHA**	384	3	119	1,842	225	1,270	26						70	**3,939**
	AREA	21,977,685	71,585	7,138,693	110,056,357	10,711,640	98,815,970	1,145,639						3,450,089	**253,367,656**
BATTAMBANG	**SHA**	85	652	19	599	374	1,773	19	2			6	6	362	**3,897**
	AREA	3,559,170	43,913,802	980,718	69,136,037	13,588,010	167,070,292	1,129,021	15,662			90,840	146,397	29,819,344	**329,449,291**
KAMPONG CHAM	**SHA**				10	246	12		24	148	32	28	70	4	**574**
	AREA				609,092	12,789,719	1,065,079		4,321,568	15,813,558	1,571,893	2,617,917	2,949,178	502,822	**42,240,825**
KAMPONG CHHNANG	**SHA**	2					49		8	15	1	1	9	1	**86**
	AREA	128,865					4,204,365		2,873,091	3,308,547	66,782	5,252	597,918	77,428	**11,262,248**
KAMPONG SPEU	**SHA**	4			3	2	389			85	3	12	41	13	**552**
	AREA	180,886			201,573	1,459	50,348,945			12,366,610	62,425	1,073,504	5,810,572	552,600	**70,598,572**
KAMPONG THOM	**SHA**		18		35	6	490	57	2	311		41	8	82	**1,050**
	AREA		969,747		4,079,347	179,660	57,194,994	11,572,976	31,863	48,879,447		4,923,309	764,663	8,575,326	**137,171,330**
KAMPOT	**SHA**	1				2	129			2	1	1	8	7	**151**
	AREA	89,887				105,409	11,848,821			103,392	68,400	128,943	299,788	547,489	**13,192,129**
KANDAL	**SHA**	1			1	1	1			43	19	6	26		**98**
	AREA	56,186			7,017	1,340	69,364			3,684,324	499,061	137,333	1,712,345		**6,166,970**
KEP	**SHA**						6								**6**
	AREA						641,691								**641,691**
KOH KONG	**SHA**	1					103					4	21	3	**132**
	AREA	19,219					9,333,261					144,387	1,295,632	145,233	**10,937,732**
KRATIE	**SHA**				37	179	65		15	225	28	23	44	3	**619**
	AREA				4,713,076	16,145,818	13,814,678		325,812	101,050,965	9,129,011	1,138,127	5,782,382	577,006	**152,676,872**
MONDUL KIRI	**SHA**				24	6	22		9	23	7	1	3		**95**
	AREA				3,213,279	722,724	4,263,255		4,818,793	17,859,077	3,303,682	66,553	1,132,938		**35,380,301**
ODDAR MEANCHEY	**SHA**	167	156	16	106	190	722	8			61	3	1	12	**1,442**
	AREA	22,204,451	8,297,916	983,970	9,741,202	8,706,347	96,137,738	5,932,060			151,222,282	222,524	6,546	9,106,102	**312,561,136**
PAILIN	**SHA**	3	95		10	47	366	3						78	**602**
	AREA	27,627	7,451,573		519,286	2,127,178	30,751,931	44,549						4,517,958	**45,440,102**
PHNOM PENH	**SHA**				4	4	4		1	19	8	1	14	5	**60**
	AREA				493,594	190,335	475,498		133,717	1,621,772	807,846	3,643	555,638	530,578	**4,812,621**
PREAH VIHEAR	**SHA**	170	62			12	248	31		51	1			5	**580**
	AREA	11,691,666	5,005,258			573,189	20,117,644	8,891,169		184,200,667	678,546			76,869	**231,235,008**

PREY VENG	**SHA**								3		10				**13**
	AREA								91,016		223,489				**314,505**
PURSAT	**SHA**	51	59			4	252	6	2		2		4	12	**392**
	AREA	3,850,138	6,284,064			30,330	27,431,719	325,738	20,018		82,178		48,400	1,457,689	**39,530,274**
RATANAK KIRI	**SHA**								3	2		3			**8**
	AREA								20,400	95,341		164,932			**280,673**
SIEMREAP	**SHA**	2	67	1	77	4	704	21		1	19	10	19	27	**952**
	AREA	108,851	6,607,842	51,544	5,402,468	215,252	75,162,842	1,160,048		2,805	1,100,003	208,299	2,301,153	1,360,548	**93,681,653**
SIHANOUKVILLE	**SHA**					1	20		3	14			8	2	**48**
	AREA					55,585	1,318,689		5,066	2,984,408			782,134	362,740	**5,508,620**
STUNG TRENG	**SHA**								1	44	1				**46**
	AREA								342,318	100,039,819	3,251				**100,385,388**
SVAY RIENG	**SHA**				83	35	9		19	15	14	2	6		**183**
	AREA				8,568,009	2,043,340	779,297		990,205	285,890	185,648	46,203	147,060		**13,045,651**
TAKEO	**SHA**				2		39		1	4	1	4	1	1	**53**
	AREA				100,092		4,036,827		148,690	364,491	4,278	202,526	49,677	30,893	**4,937,474**
Grand Total	**SHA**	871	1,112	155	2,833	1,338	6,673	171	93	1,002	208	146	289	687	**15,578**
	AREA	63,894,629	78,601,787	9,154,925	216,840,425	68,187,332	674,882,897	30,201,200	14,138,219	492,661,111	169,008,775	11,174,290	24,382,419	61,690,712	**1,914,818,720**

Annex 3: Map of districts where Baseline Survey had been conducted.



Annex 4: Contamination per province

Battambang Province

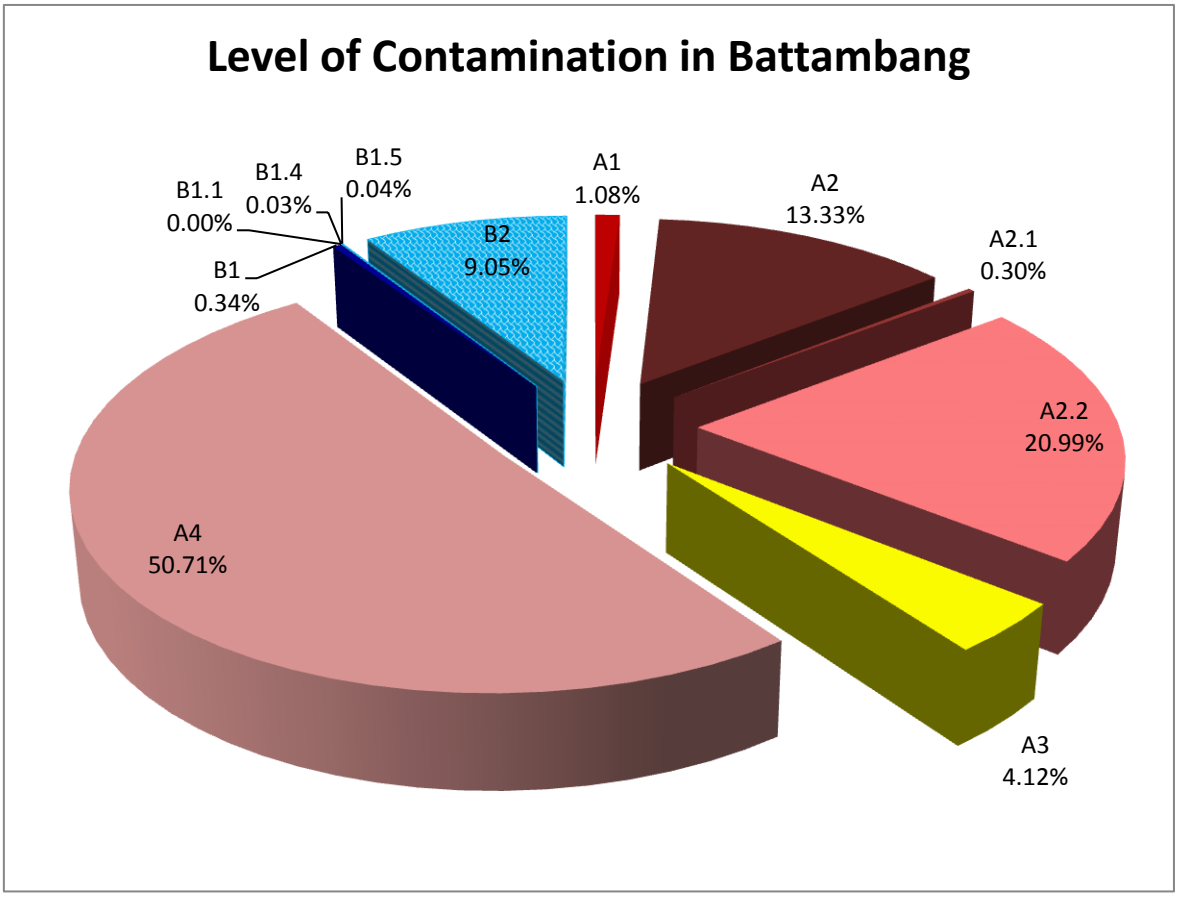
Number of contaminated polygon	3,897
Size of contaminated land (m^2)	329,449,291

District level:

Number of districts in the province	14
Number of districts contaminated	14
Number of districts not contaminated	0

Commune level:

Number of communes in the province	96
Number of communes contaminated	77
Number of communes not contaminated	19



OddarMeanchey Province

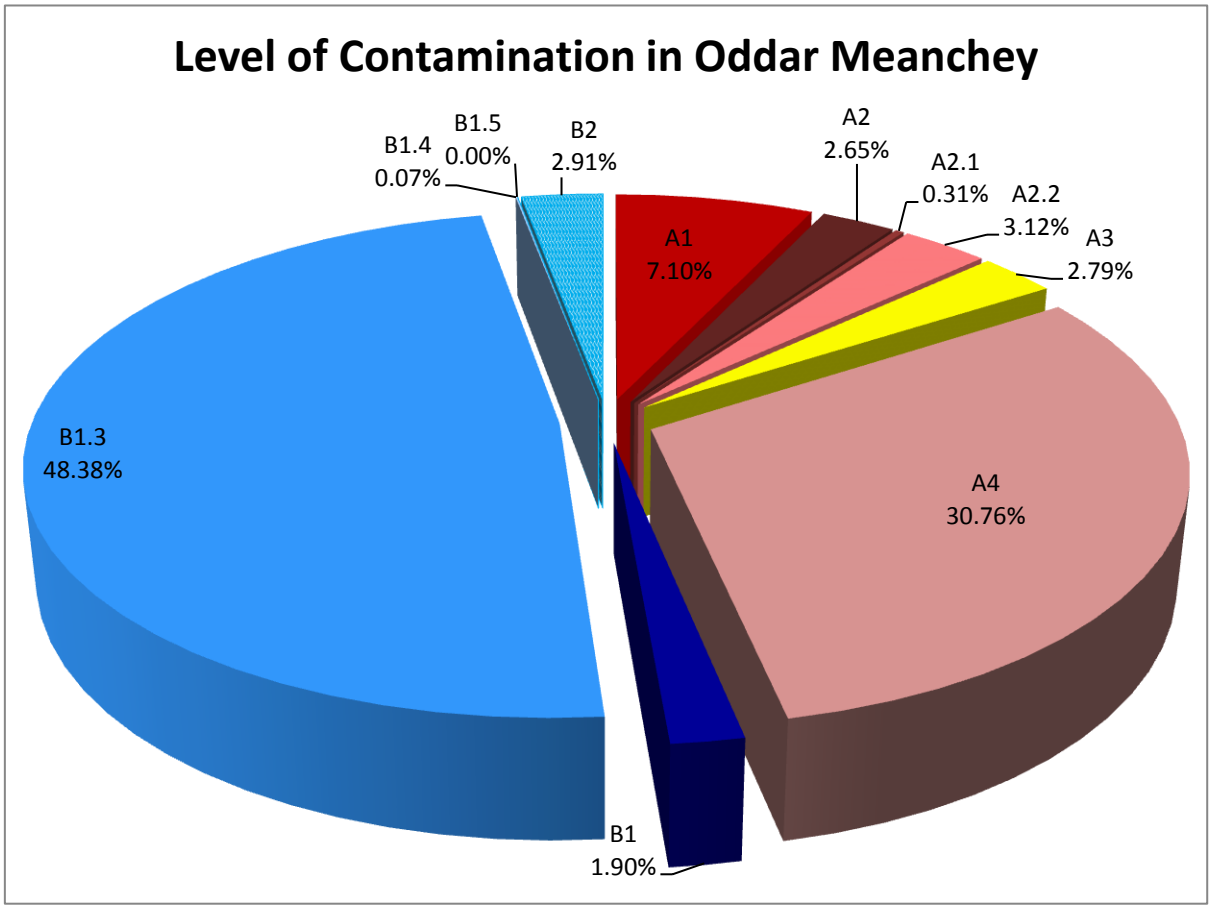
Number of contaminated polygon	1,442
Size of contaminated land (m^2)	312,561,136

District level:

Number of districts in the province	5
Number of districts contaminated	5
Number of districts not contaminated	0

Commune level:

Number of communes in the province	24
Number of communes contaminated	22
Number of communes not contaminated	2



BanteayMeanchey province

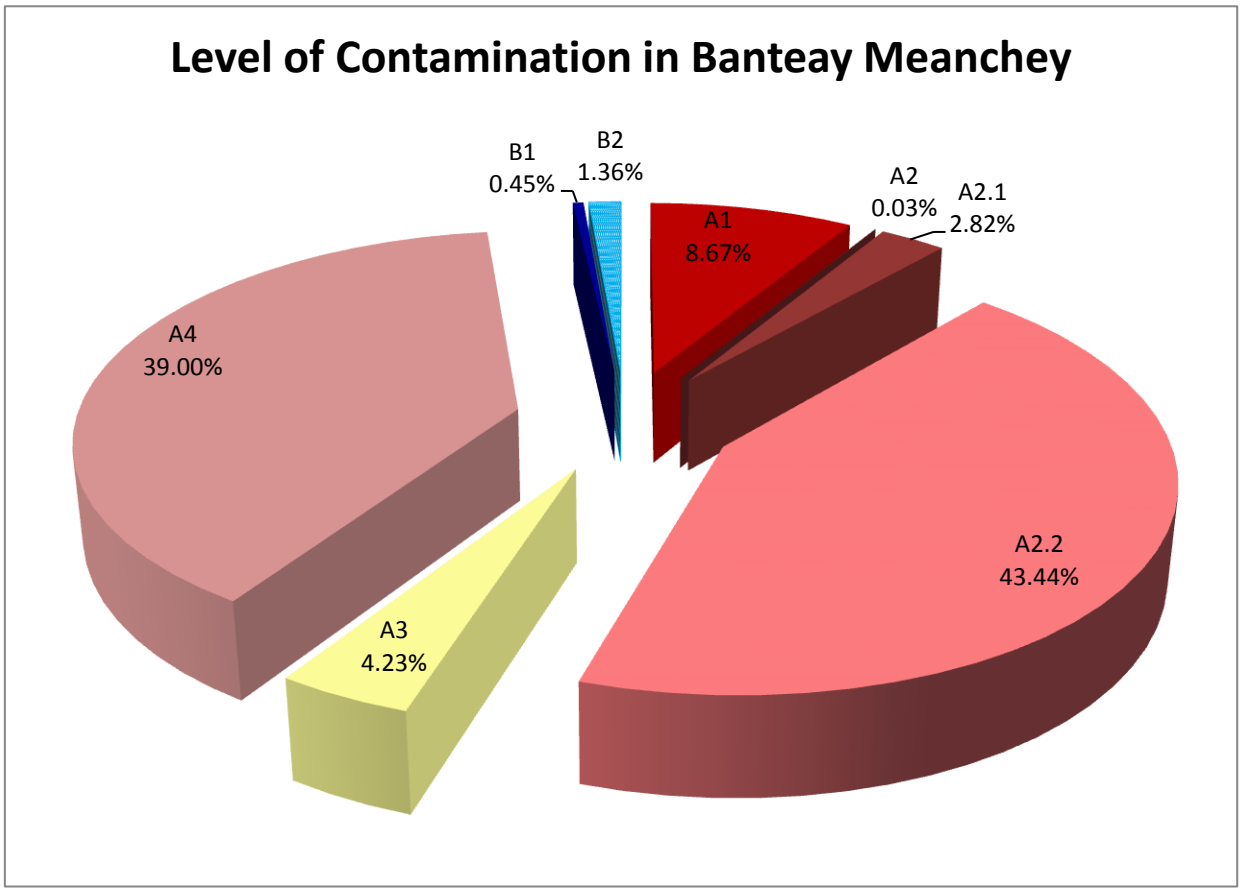
Number of contaminated polygon	3,939
Size of contaminated land (m^2)	253,367,656

District level:

Number of districts in the province	9
Number of districts contaminated	9
Number of districts not contaminated	0

Commune level:

Number of communes in the province	64
Number of communes contaminated	44
Number of communes not contaminated	20



PreahVihear Province

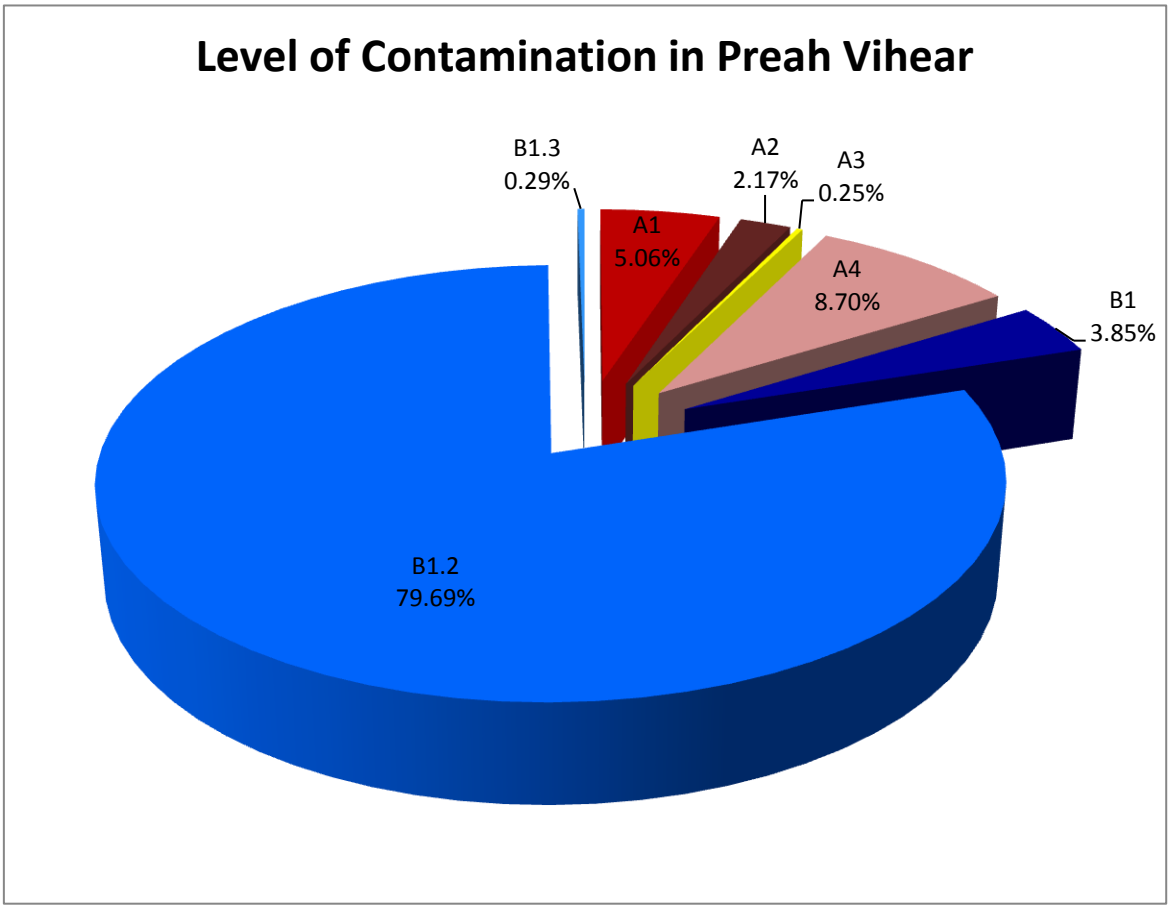
Number of contaminated polygon	580
Size of contaminated land (m^2)	231,235,008

District level:

Number of districts in the province	8
Number of districts contaminated	8
Number of districts not contaminated	0

Commune level:

Number of communes in the province	49
Number of communes contaminated	39
Number of communes not contaminated	10



Kratie Province

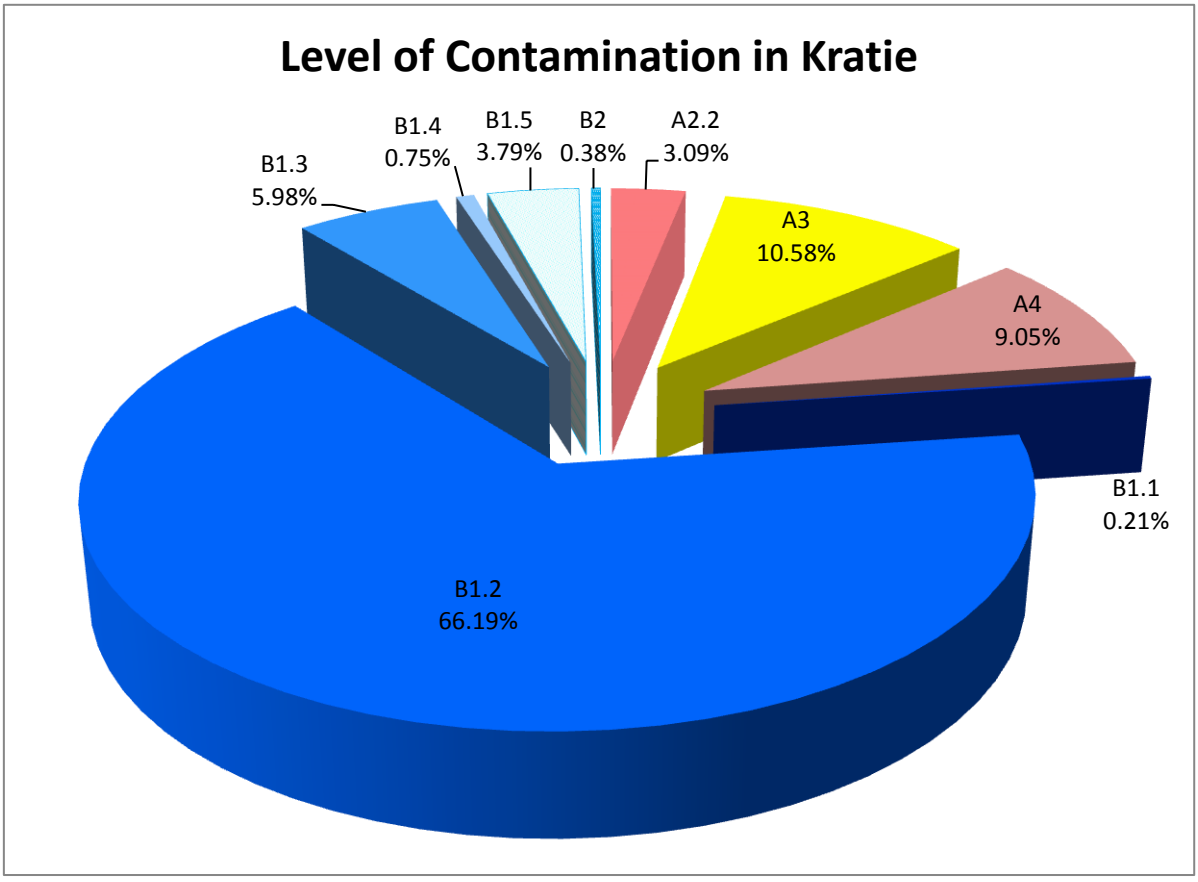
Number of contaminated polygon	619
Size of contaminated land (m^2)	152,676,872

District level:

Number of districts in the province	6
Number of districts contaminated	6
Number of districts not contaminated	0

Commune level:

Number of communes in the province	46
Number of communes contaminated	36
Number of communes not contaminated	10



Kampong Thom Province

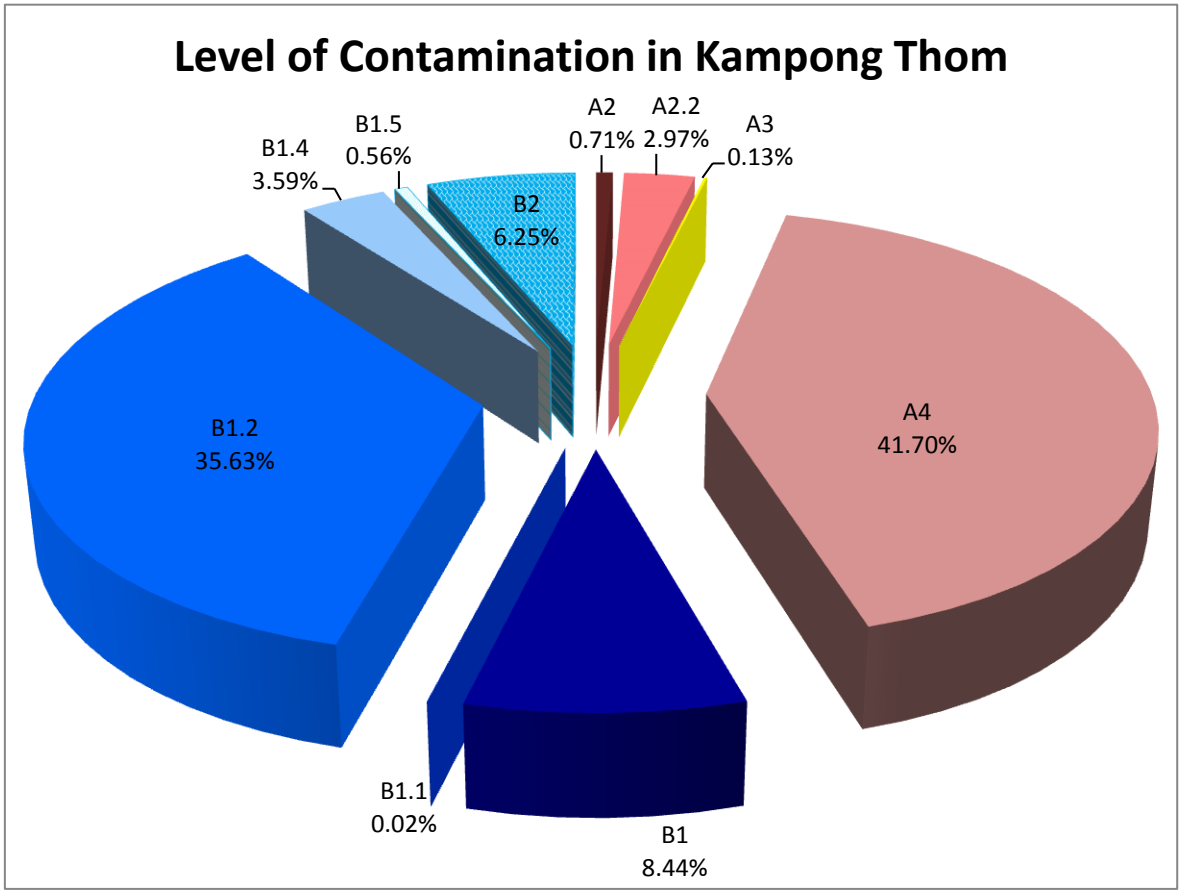
Number of contaminated polygon	1,050
Size of contaminated land (m^2)	137,171,330

District level:

Number of districts in the province	8
Number of districts contaminated	8
Number of districts not contaminated	0

Commune level:

Number of communes in the province	81
Number of communes contaminated	63
Number of communes not contaminated	18



Stung TrengProvince

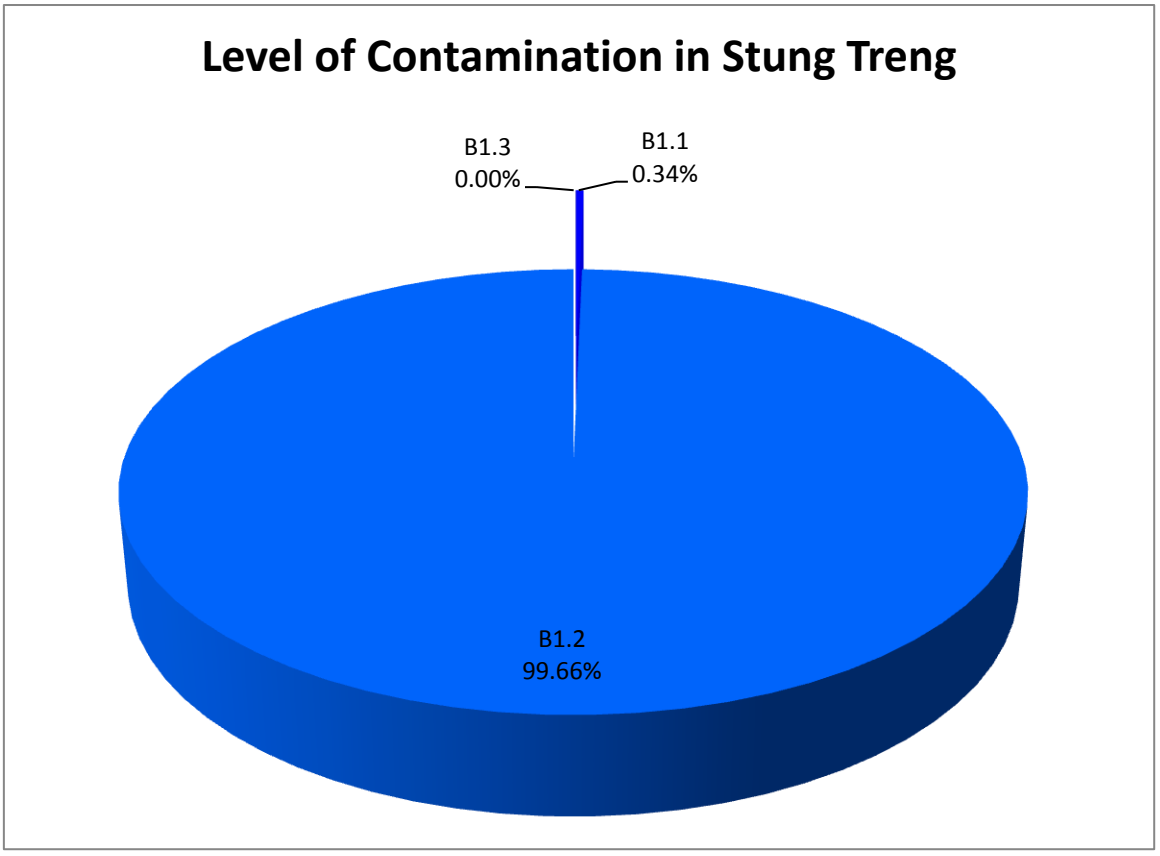
Number of contaminated polygon	46
Size of contaminated land (m^2)	100,385,388

District level:

Number of districts in the province	5
Number of districts contaminated	3
Number of districts not contaminated	2

Commune level:

Number of communes in the province	34
Number of communes contaminated	13
Number of communes not contaminated	21



Siem Reap Province

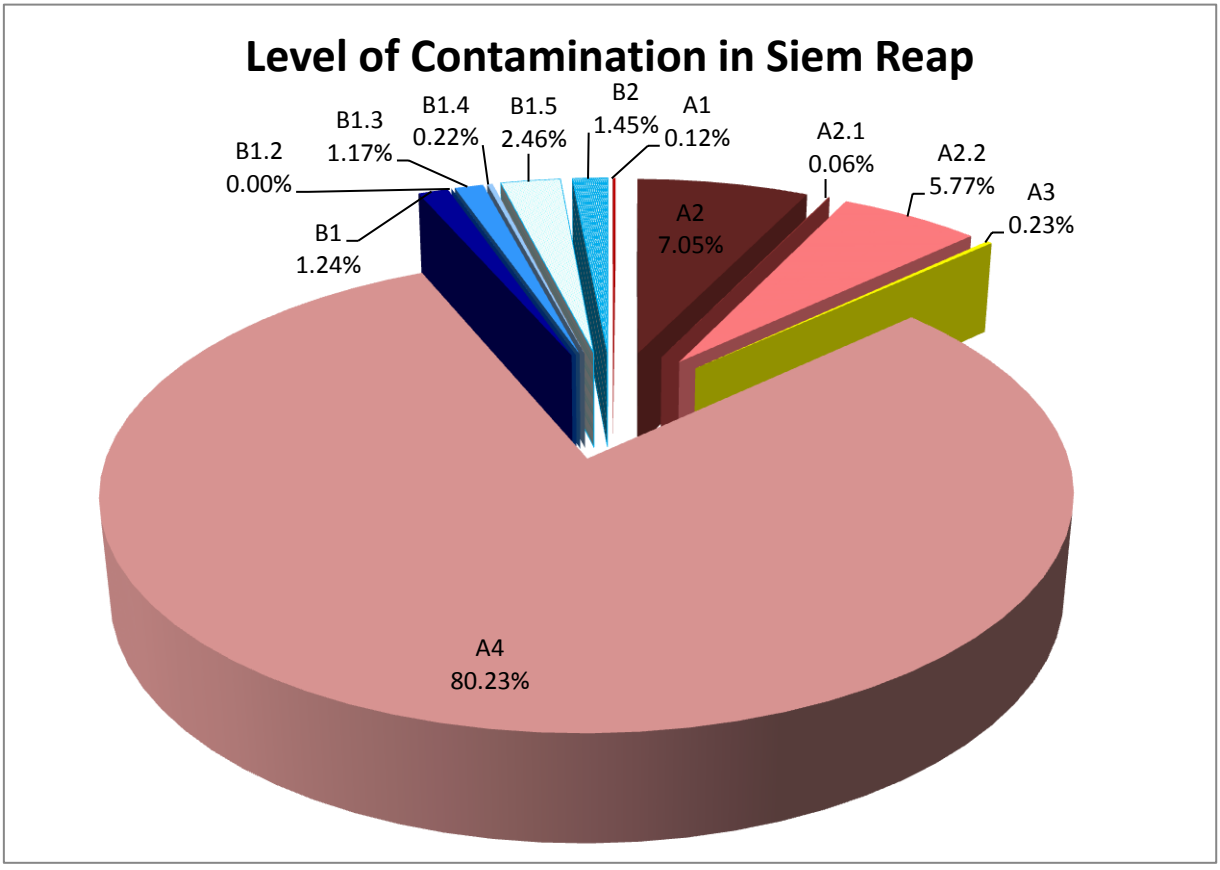
Number of contaminated polygon	952
Size of contaminated land (m^2)	93,681,653

District level:

Number of districts in the province	12
Number of districts contaminated	12
Number of districts not contaminated	0

Commune level:

Number of communes in the province	100
Number of communes contaminated	62
Number of communes not contaminated	38



Kampong Speu Province

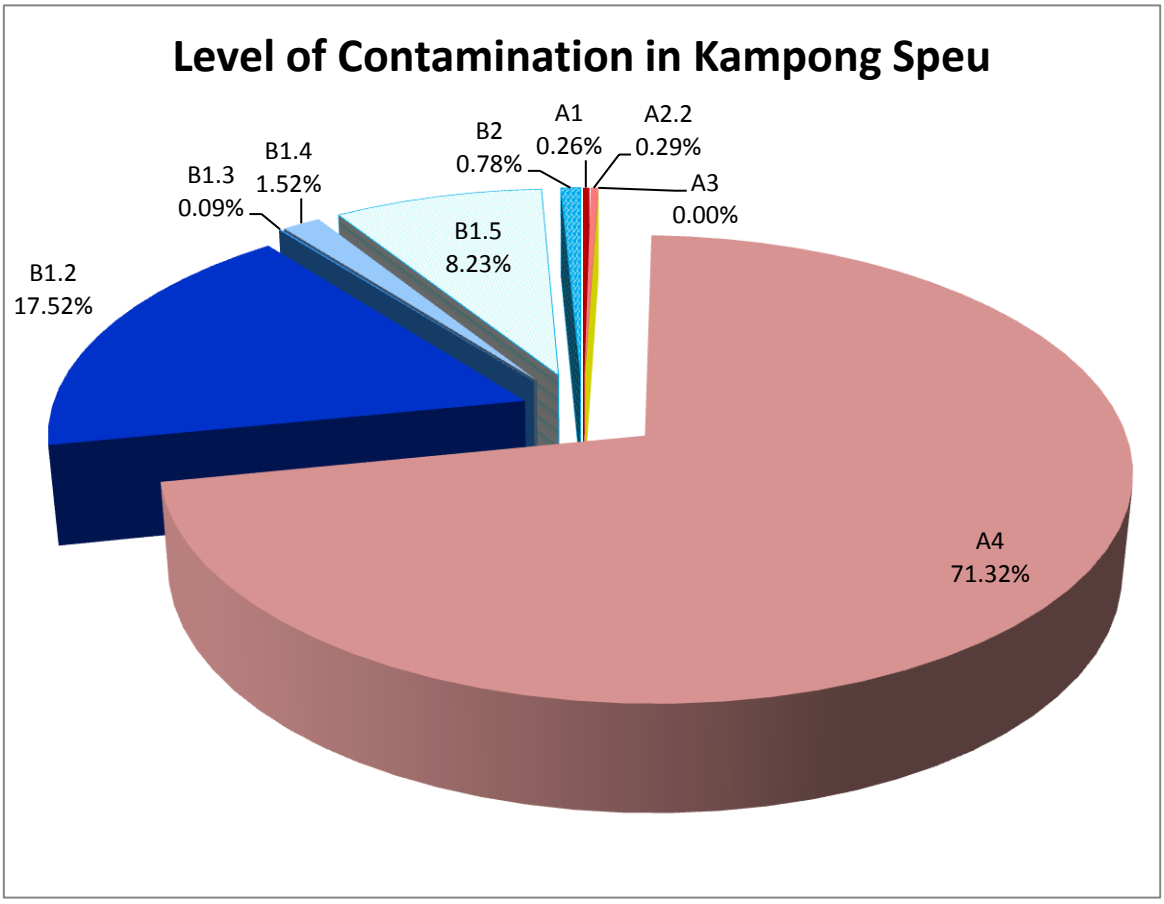
Number of contaminated polygon	552
Size of contaminated land (m^2)	70,598,572

District level:

Number of districts in the province	8
Number of districts contaminated	7
Number of districts not contaminated	1

Commune level:

Number of communes in the province	87
Number of communes contaminated	55
Number of communes not contaminated	32



Pailin Province

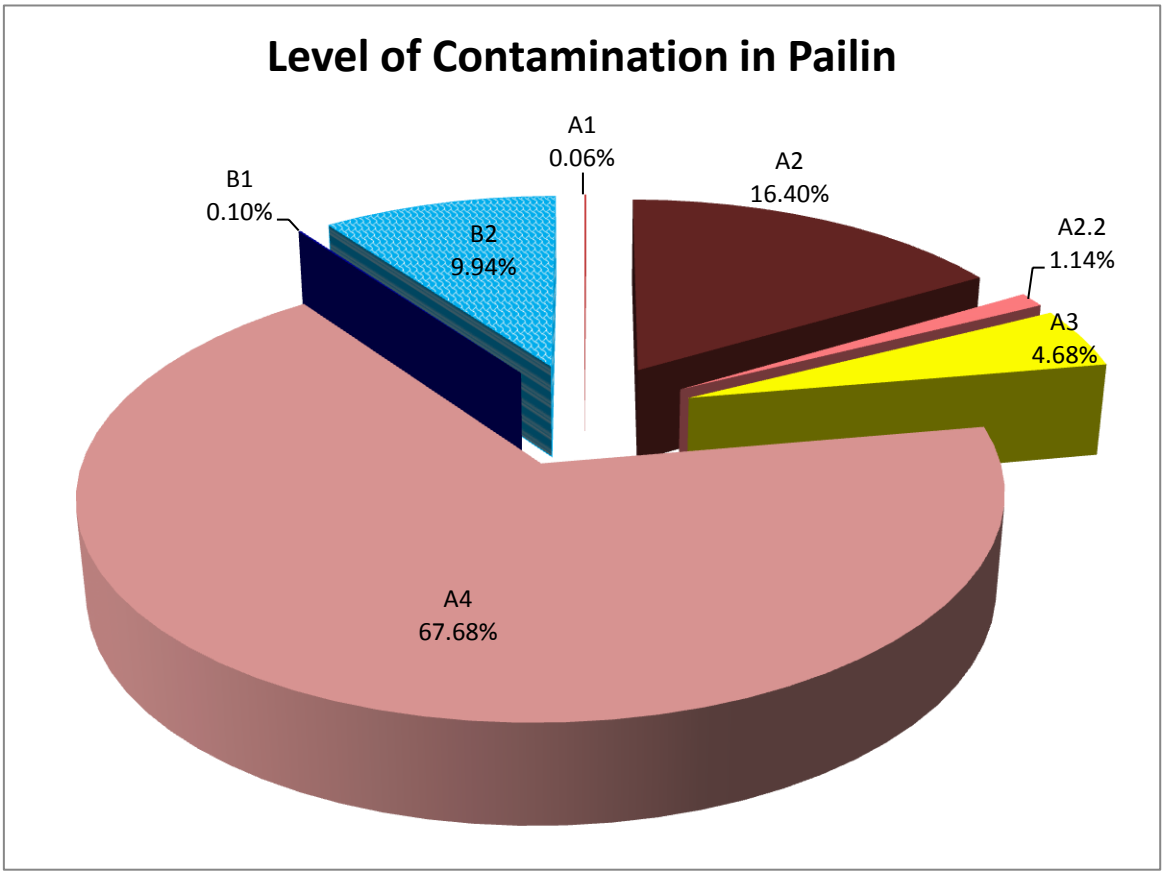
Number of contaminated polygon	602
Size of contaminated land (m^2)	45,440,102

District level:

Number of districts in the province	2
Number of districts contaminated	2
Number of districts not contaminated	0

Commune level:

Number of communes in the province	8
Number of communes contaminated	8
Number of communes not contaminated	0



Kampong Cham Province

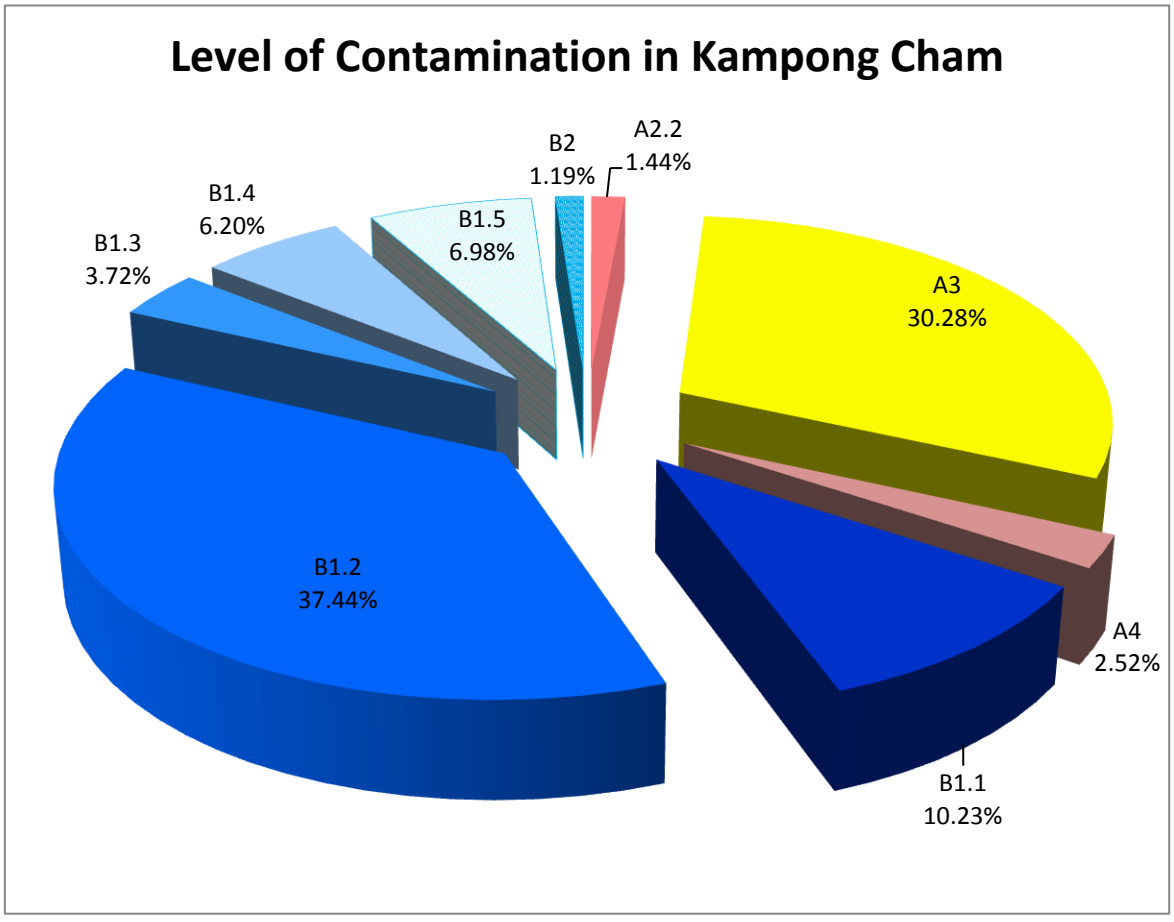
Number of contaminated polygon	574
Size of contaminated land (m^2)	42,240,825

District level:

Number of districts in the province	17
Number of districts contaminated	15
Number of districts not contaminated	2

Commune level:

Number of communes in the province	173
Number of communes contaminated	74
Number of communes not contaminated	99



Pursat Province

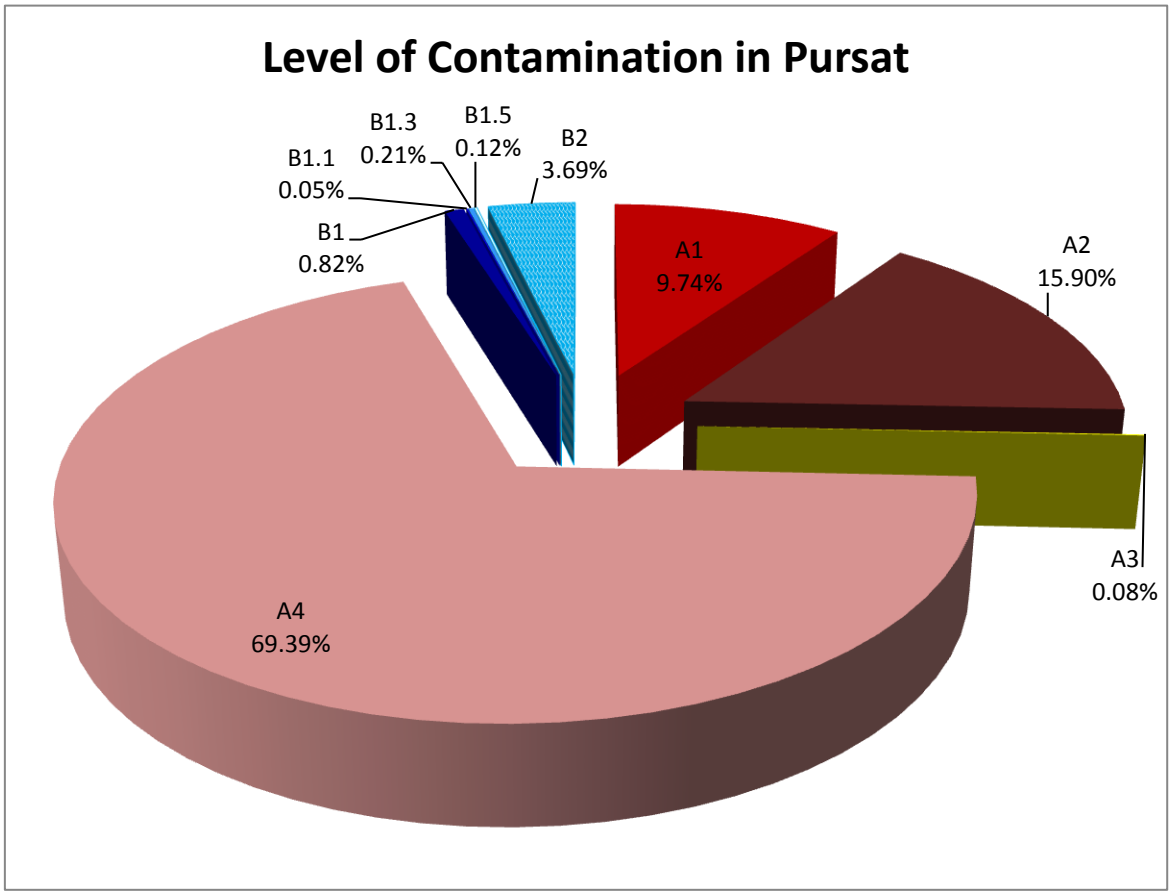
Number of contaminated polygon	392
Size of contaminated land (m^2)	39,530,274

District level:

Number of districts in the province	6
Number of districts contaminated	5
Number of districts not contaminated	1

Commune level:

Number of communes in the province	49
Number of communes contaminated	14
Number of communes not contaminated	35



MondulKiri Province

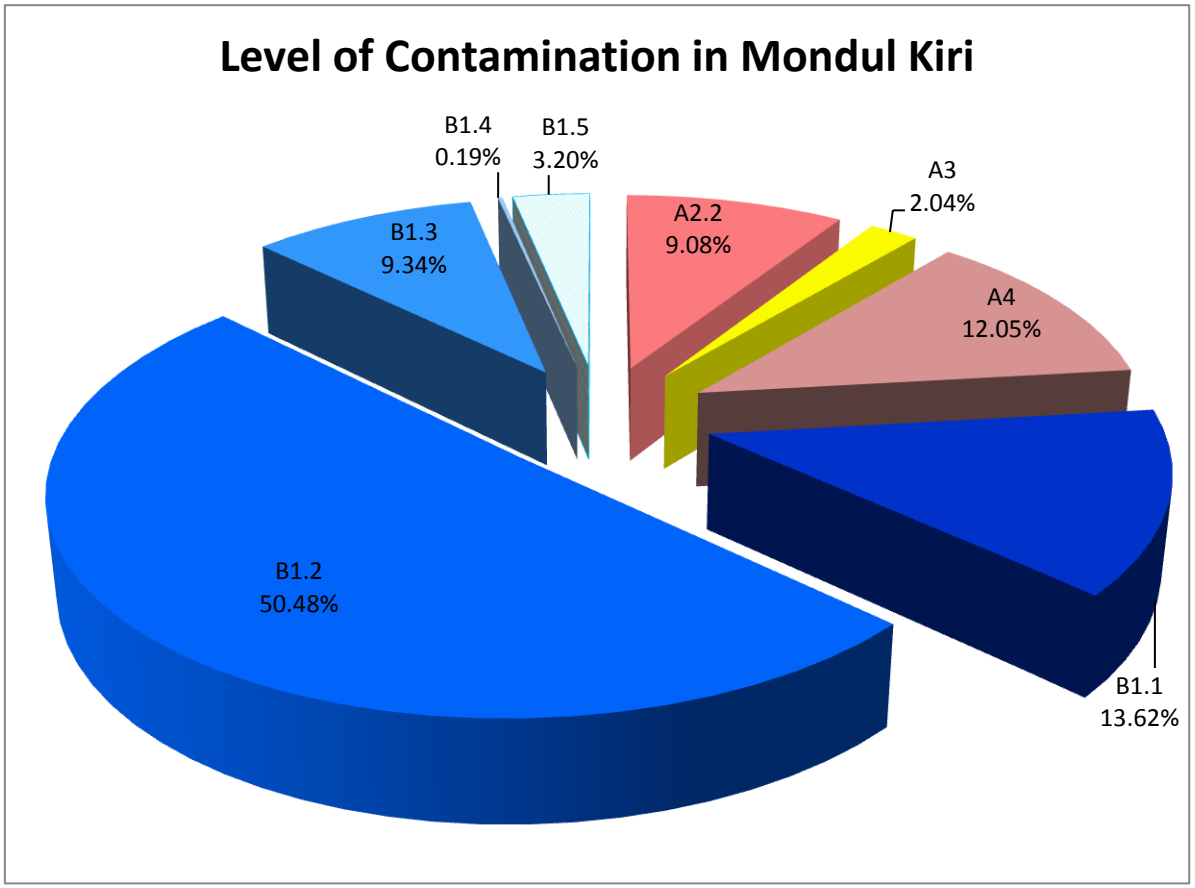
Number of contaminated polygon	95
Size of contaminated land (m^2)	35,380,301

District level:

Number of districts in the province	5
Number of districts contaminated	2
Number of districts not contaminated	3

Commune level:

Number of communes in the province	21
Number of communes contaminated	10
Number of communes not contaminated	11



Kampot Province

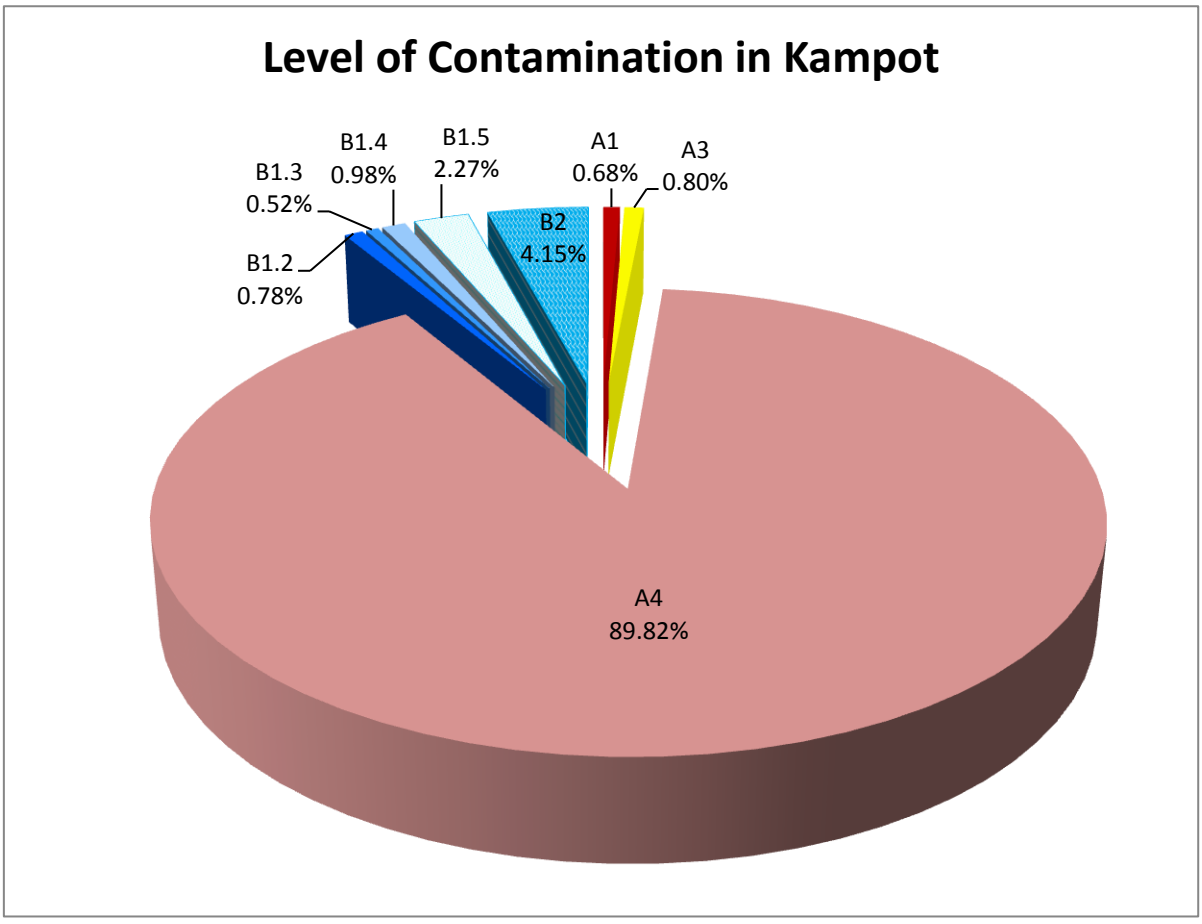
Number of contaminated polygon	151
Size of contaminated land (m^2)	13,192,129

District level:

Number of districts in the province	8
Number of districts contaminated	8
Number of districts not contaminated	0

Commune level:

Number of communes in the province	93
Number of communes contaminated	37
Number of communes not contaminated	56



SvayRieng

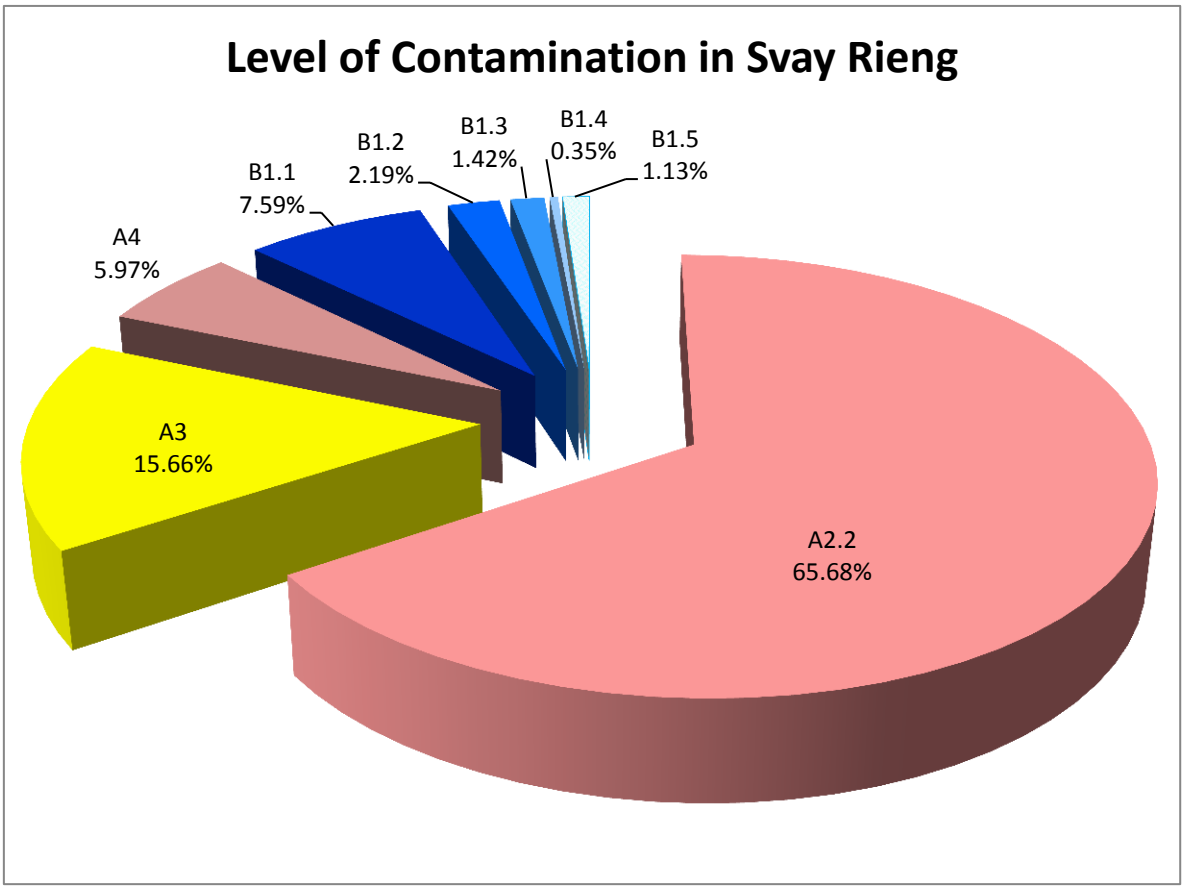
Number of contaminated polygon	183
Size of contaminated land (m^2)	13,045,651

District level:

Number of districts in the province	8
Number of districts contaminated	6
Number of districts not contaminated	2

Commune level:

Number of communes in the province	80
Number of communes contaminated	21
Number of communes not contaminated	59



Kampong Chhnang Province

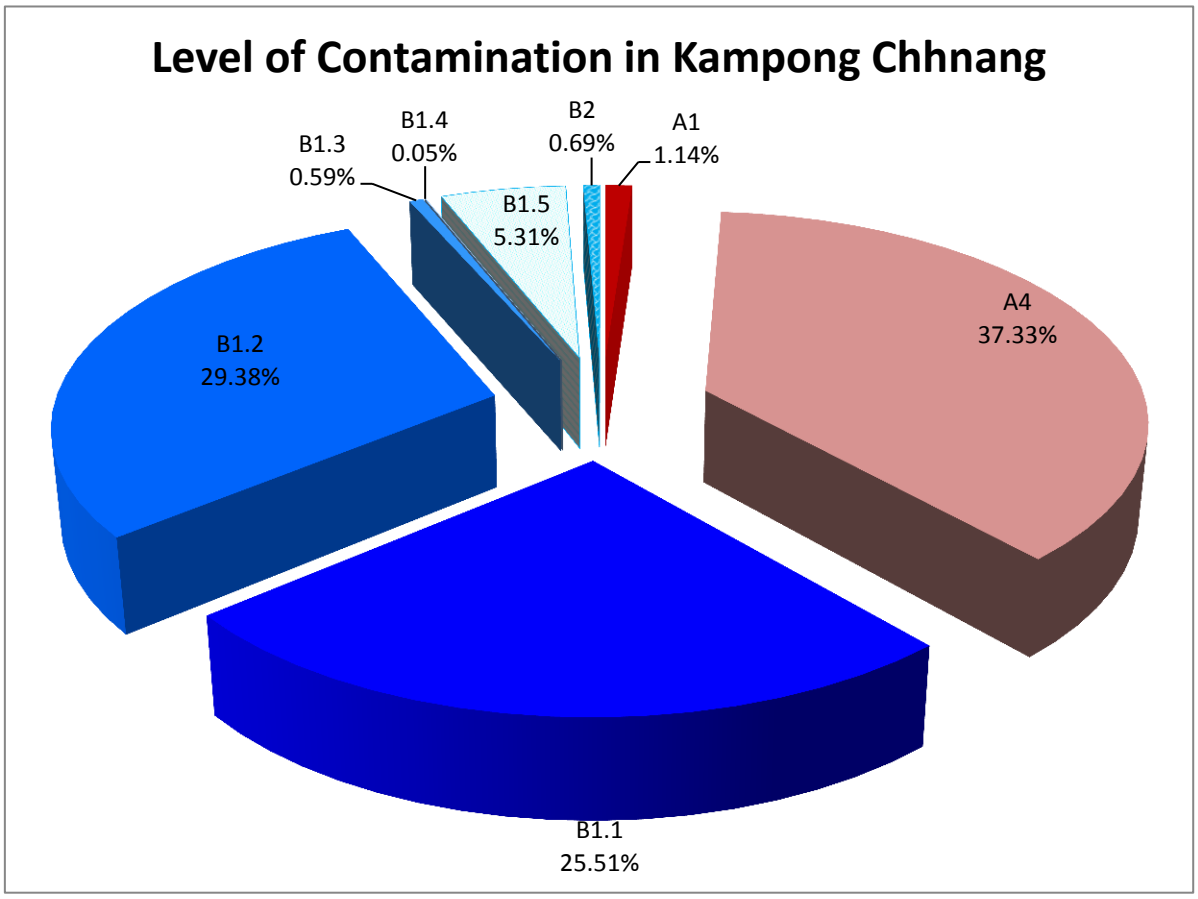
Number of contaminated polygon	86
Size of contaminated land (m^2)	11,262,248

District level:

Number of districts in the province	8
Number of districts contaminated	5
Number of districts not contaminated	3

Commune level:

Number of communes in the province	69
Number of communes contaminated	20
Number of communes not contaminated	49



Koh Kong Province

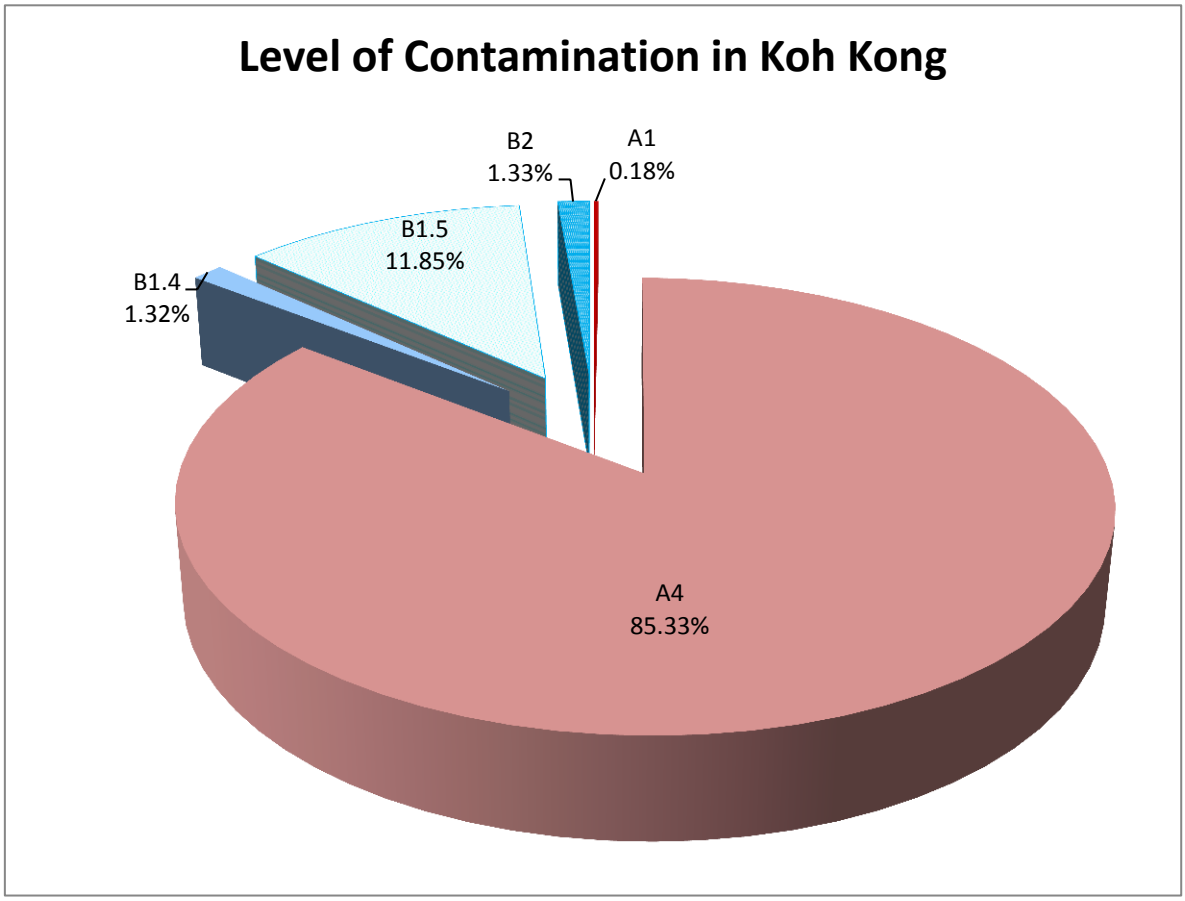
Number of contaminated polygon	132
Size of contaminated land (m^2)	10,937,732

District level:

Number of districts in the province	7
Number of districts contaminated	6
Number of districts not contaminated	1

Commune level:

Number of communes in the province	29
Number of communes contaminated	16
Number of communes not contaminated	13



Kandal Province

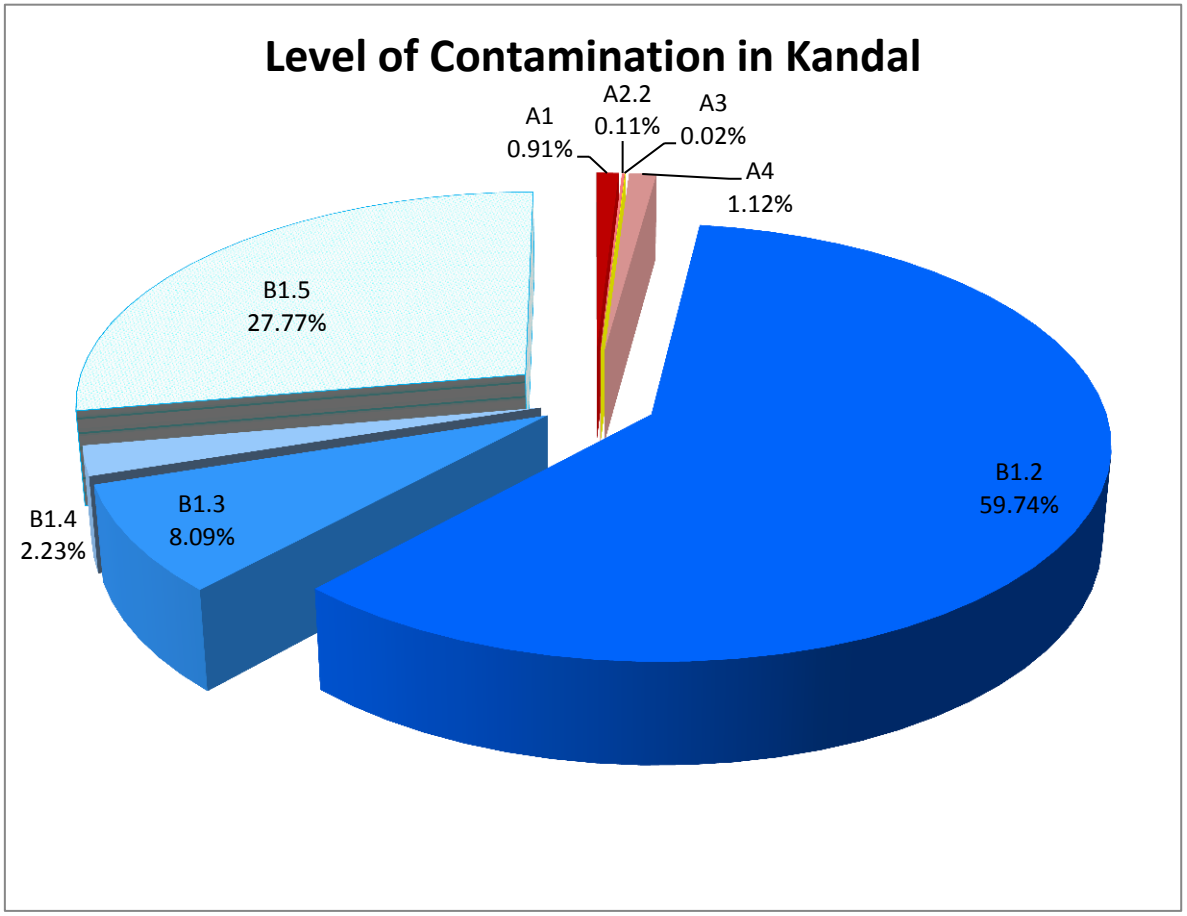
Number of contaminated polygon	98
Size of contaminated land (m^2)	6,166,970

District level:

Number of districts in the province	11
Number of districts contaminated	5
Number of districts not contaminated	6

Commune level:

Number of communes in the province	147
Number of communes contaminated	26
Number of communes not contaminated	121



Sihanoukville

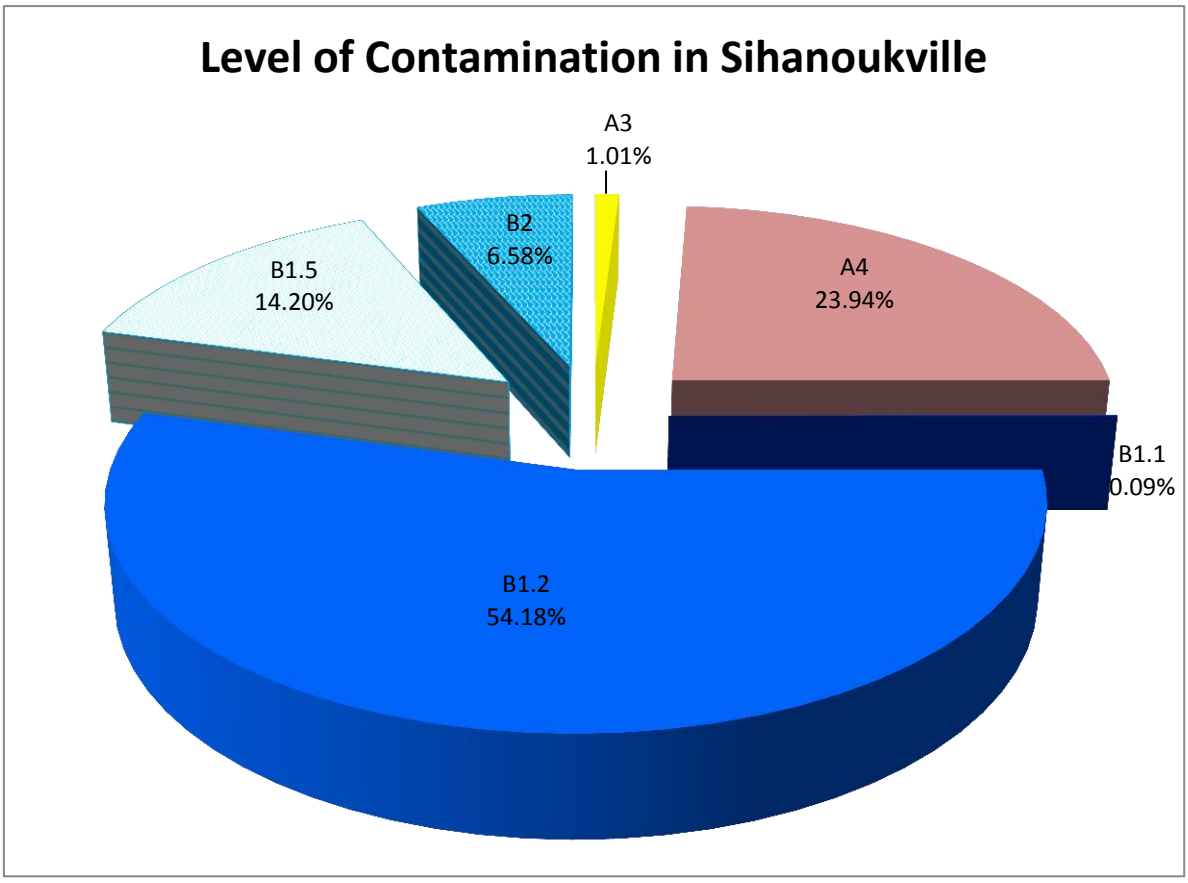
Number of contaminated polygon	48
Size of contaminated land (m^2)	5,508,620

District level:

Number of districts in the province	4
Number of districts contaminated	2
Number of districts not contaminated	2

Commune level:

Number of communes in the province	26
Number of communes contaminated	6
Number of communes not contaminated	20



Takeo Province

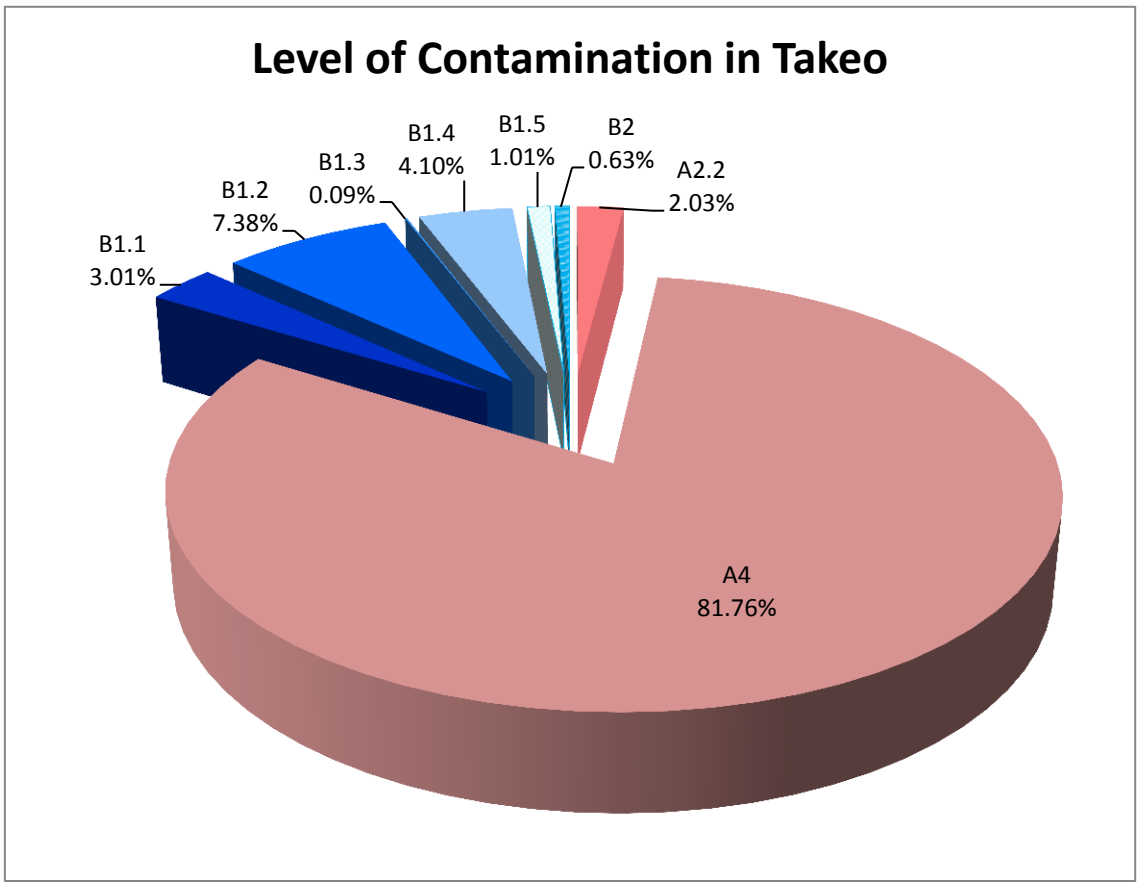
Number of contaminated polygon	53
Size of contaminated land (m^2)	4,937,474

District level:

Number of districts in the province	10
Number of districts contaminated	2
Number of districts not contaminated	8

Commune level:

Number of communes in the province	100
Number of communes contaminated	10
Number of communes not contaminated	90



Phnom Penh

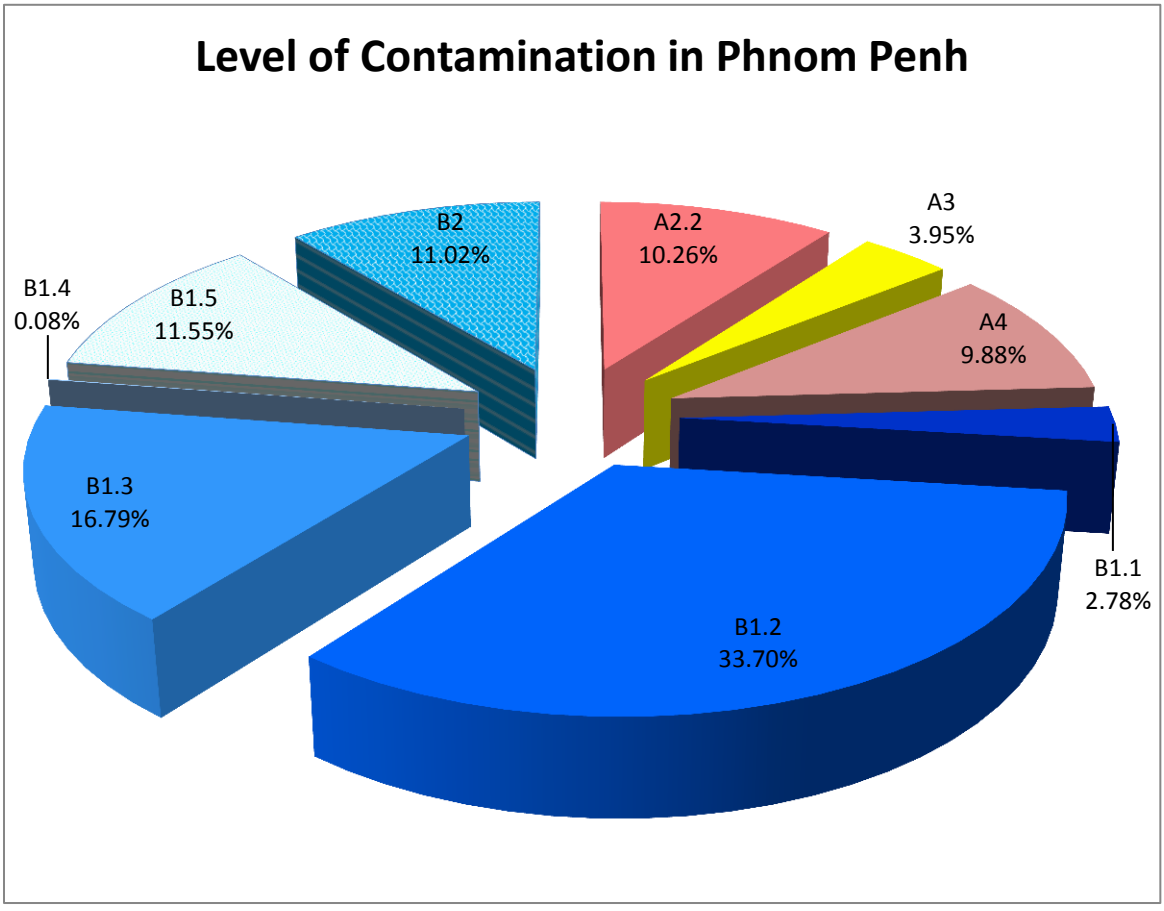
Number of contaminated polygon	60
Size of contaminated land (m^2)	4,812,621

District level:

Number of districts in the city	9
Number of districts contaminated	3
Number of districts not contaminated	6

Commune level:

Number of communes in the city	103
Number of communes contaminated	10
Number of communes not contaminated	93



Kep Province

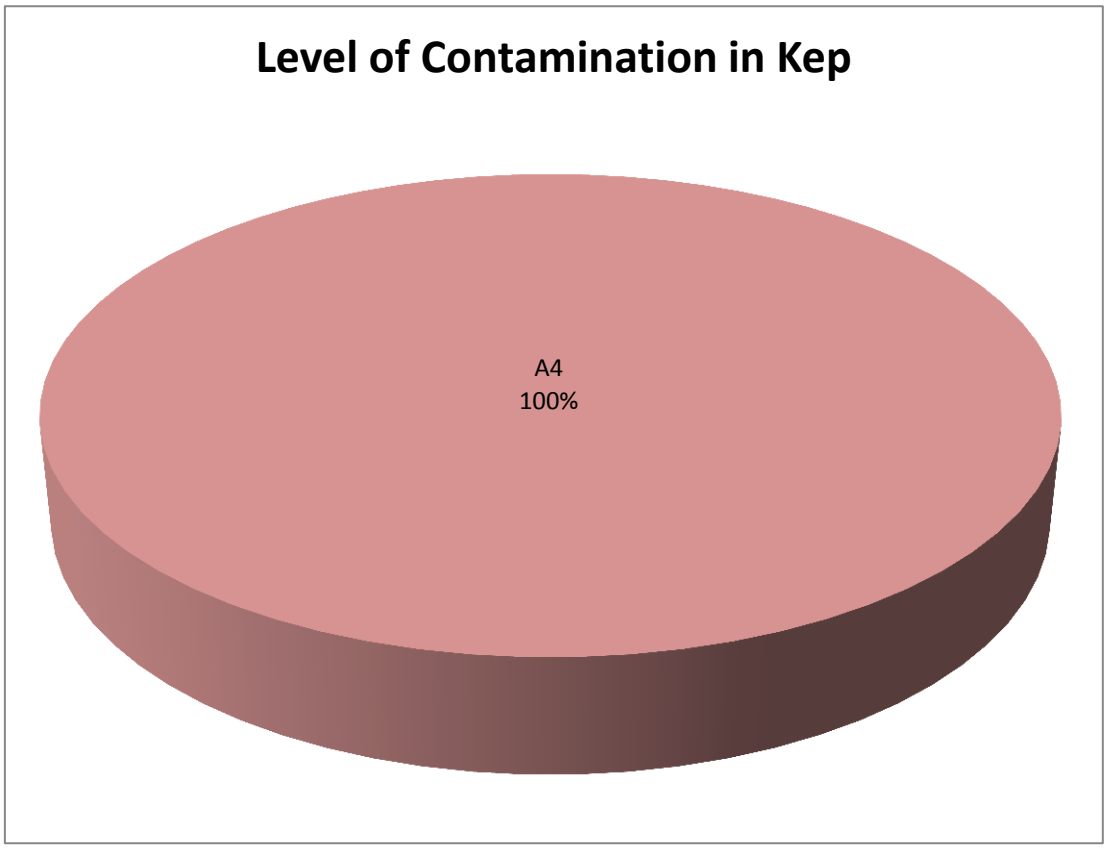
Number of contaminated polygon	6
Size of contaminated land (m^2)	641,691

District level:

Number of districts in the province	2
Number of districts contaminated	2
Number of districts not contaminated	0

Commune level:

Number of communes in the province	5
Number of communes contaminated	2
Number of communes not contaminated	3



Prey Veng Province

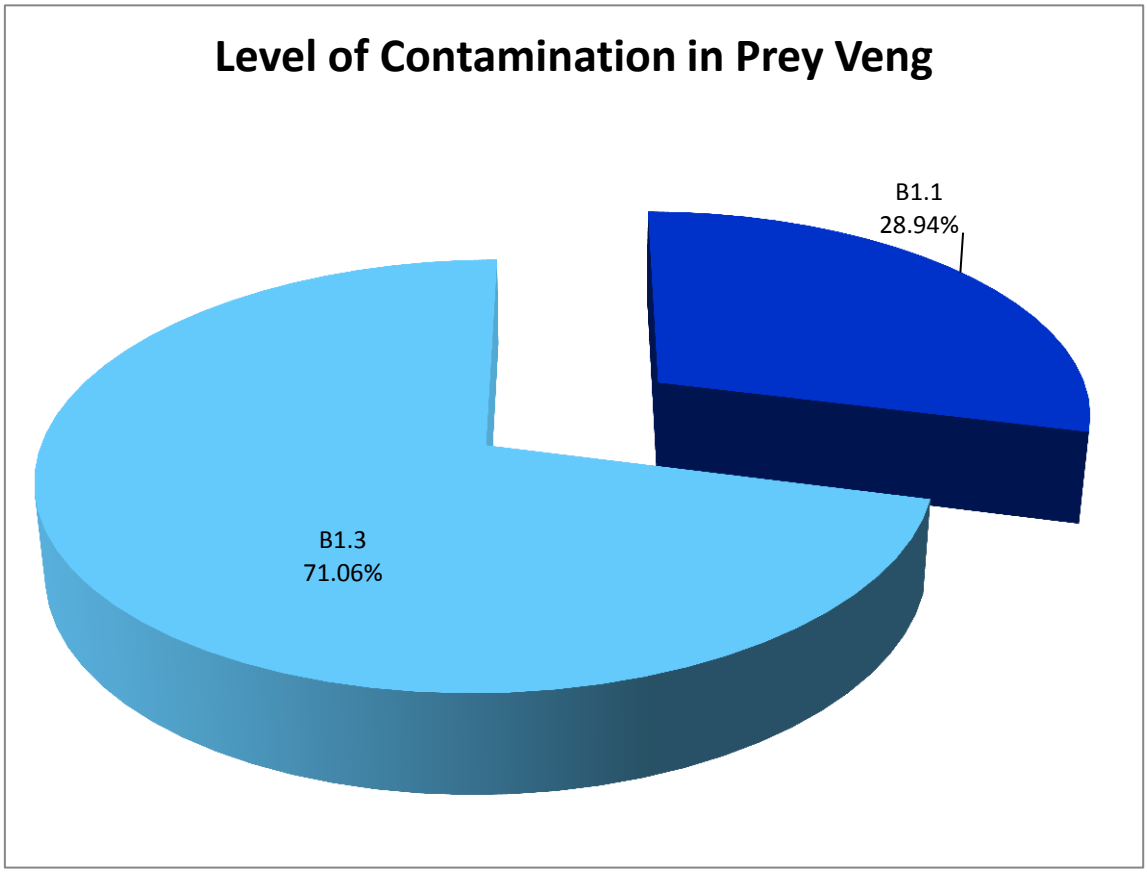
Number of contaminated polygon	13
Size of contaminated land (m^2)	314,505

District level:

Number of districts in the province	13
Number of districts contaminated	3
Number of districts not contaminated	10

Commune level:

Number of communes in the province	116
Number of communes contaminated	4
Number of communes not contaminated	112



RatanakKiri Province

Number of contaminated polygon	8
Size of contaminated land (m^2)	280,673

District level:

Number of districts in the province	9
Number of districts contaminated	1
Number of districts not contaminated	8

Commune level:

Number of communes in the province	49
Number of communes contaminated	4
Number of communes not contaminated	45