

Exercise

Identify Sector Specific Data Stories

Summary

1. Module: Introduction to Data-Driven Storytelling¹
2. Lesson: Sector specific data stories
3. Sub-topic: Identify Sector Specific Data Stories
4. Objective: Analysing small datasets for interesting stories
5. Time Allotment: 90 minutes

Steps

Learning Context

[Related Slides](#)

In this exercise, we will brainstorm story ideas for a small dataset about a different sector. The sectors we will cover are:

- **Governance/Security:** Governance data covers a wide variety of data sets including on topics such as voting records, campaign financing, parliamentary expenses, transparency ratings, and procurement. Security data can include everything from monthly crime statistics to prison populations and judicial sentences.
- **Economy/Employment:** Economic data can be crucial for citizens to understand not only the economic outlook of the country but also how to make personal economic decisions that lead to economic growth and stability. Many economic reports come out regularly including government budgets and spending reports, inflation rates, economic growth reports, trade data and business environment surveys.

¹ This lesson was adapted from the World Bank's Introduction to Data Literacy training manual by Eva Constantaras, and adapted by Yan Naung Oak, Open Development Cambodia and Open Development Initiative, and is licensed under a [Creative Commons Attribution-NonCommercial-ShareAlike 4.0 International License](#). For full terms of use, see [here](#).

- **Health:** Public health indicators are a rich source of data to evaluate government provision of basic services. Good places to start are with data such as the number of doctors, nurses and hospital beds per 1,000 people, leading causes of death, rates of child death and maternal death, and spending per capita on health. This data can help identify where healthcare shortages are most severe and their impact.
- **Education:** Because of the critical role that education plays in economic and social mobility, education data is a rich source of stories that can impact the lives of citizens. Basic education data often includes the percentage of school age children in school at primary, secondary and tertiary levels, ratio of girls to boys, completion rates and literacy rates. Often, detailed data is available for individual schools such as test score results by subject and the number of students transitioning to the next level of education. This data can be important for parents enrolling their children in schools and governments interested in equalizing access to education among their constituency.
- **Gender:** Gender equality is one of the major challenges facing countries across the world. Gender issues run through all other sectors, from education and economy to health and environment. Gender equality helps countries develop in all of the other sectors and thus can be key to understanding causes of stalled development.
- **Human Rights:** Human rights and equality data often address the people and issues that are most neglected by society and government. This includes data about the disabled, ethnic or religious minorities, women and the elderly. Since these topics and groups are so rarely discussed openly, these types of data can open a window into the world of marginalized groups and make their challenges concrete and solutions more tangible.
- **Environment/Agriculture:** Environmental and agricultural data can be a polarizing topic. On the one hand, exploitation of natural resources can lead to economic growth in a country but on the other hand, often local communities are negatively impacted and precious natural resources are destroyed. Analyzing this data can help citizens weigh the costs and benefits of current environmental policy and advocate for changes.

In Groups

Each group will be assigned a sector and select a related dataset.

1. สิ่งแวดล้อม / มลพิษ: [สรุปสถานการณ์มลพิษของประเทศไทย ปี พ.ศ. 2561](#)
2. Environment / Energy: [รายงานสถิติพลังงานของประเทศไทยปี 2563 / Energy Statistics of Thailand 2020](#)
3. สุขภาพ / ผู้สูงอายุ: [ดัชนีพหุพลังผู้สูงอายุไทย](#)
4. Human Rights / Anti-Human Trafficking: [Progress Report on Anti-Human Trafficking Efforts](#)



Answer the following questions:

1. What problem questions can you answer with this data?
2. What impact questions can you answer with this data?
3. What cause questions can you answer with this data?
4. What solution questions can you answer with this data?
5. Write a brief (150-200 word) story based on your findings and share with the group.

Assessment

Listen to other groups present. Be sure to look at their data source as well. Are they missing any questions that you would like to ask based on the available data? Listen to their story. Would you categorize it as a problem story, an impact story, a cause story or a solution story?



Datasets

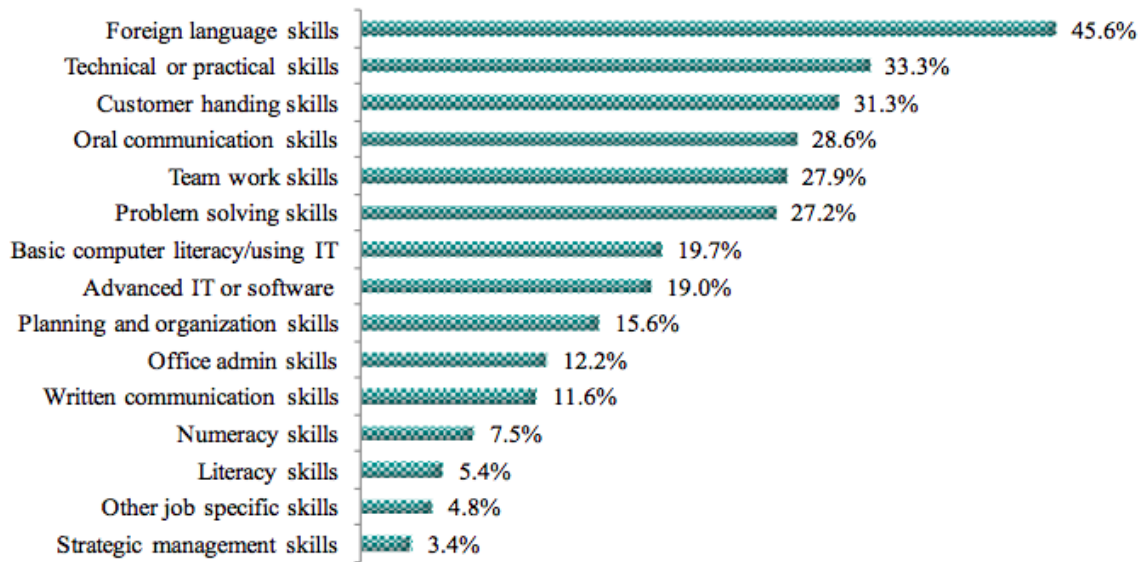
Group 1: [Skill shortages and skill gaps in Cambodia Labor Market](#) (table 2.3, pg 18 and Fig 5.6, pg 34)

Table 2.3: Actual and Forecast Employment Growth Rate by Sector, 1993-2019

	1993-2014	1993-1998	1998-2008	2008-2009	2009-2014	2014-2019
Total	217,569	192,703	214,819	670,251	157,400	139,083
Agriculture	50,355	148,730	20,751	674,999	-113,739	-109,814
Crops	4,565	112,142	-85,114	675,210	-57,782	-26,671
Livestock & Poultry	30,742	20,883	69,520	-43,100	-22,188	-39,642
Forestry & Logging	5,105	6,601	15,876	74,551	-31,823	-17,367
Fisheries	9,943	9,103	20,468	-31,662	-1,946	-26,134
Industry	87,370	32,058	80,046	58,021	163,200	99,241
Mining	1,225	-209	-33	17,624	1,894	4,145
Food, Beverages & Tobacco	5,483	5,172	9,691	-12,270	929	-4,082
Textile, Wearing Apparel & Footwear	43,987	17,342	25,784	55,526	104,731	55,689
Wood, Paper & Publishing	4,544	2,875	16,135	-43,353	-7,390	-11,267
Rubber Manufacturing	582	-201	-20	100	2,663	1,058
Other Manufacturing	4,455	-2,875	5,643	5,840	9,131	15,237
Construction	25,389	8,600	19,877	-14,532	61,188	36,836
Utilities	1,706	1,354	2,969	49,087	-9,946	1,624
Services	79,844	11,916	114,022	-62,769	107,939	149,656
Trade	24,952	3,428	50,782	-69,004	13,607	64,580
Hotel & Restaurants	12,641	637	1,265	187,371	12,451	55,181
Transport & Communications	10,988	-1,898	15,400	-12,617	19,772	13,634
Finance	2,850	651	-143	14,842	8,637	8,258
Public Administration	4,357	380	6,366	-29,994	11,185	5,638
Real Estate & Business	12,554	-353	17,251	-36,944	25,968	8,275
Other services	11,501	9,070	23,101	-116,423	16,319	-5,911

Source: NEA's forecast based on CSES data from 1993-2014 and sectoral macro forecasting 1993-2019 of Ministry of Economics and Finance (unpublished paper)

Figure 5.6: Type of skills shortage (% of establishments reported skills shortage)



n (unweighted establishments with skills shortages) = 158

Table 12.1 Early childhood mortality rates

Neonatal, postneonatal, infant, child, and under-5 mortality rates for five-year periods preceding the survey, Cambodia 2014

Years preceding the survey	Neonatal mortality (NN)	Post-neonatal mortality (PNN) ¹	Infant mortality (1q0)	Child mortality (4q1)	Under-5 mortality (5q0)
0-4	18	10	28	7	35
5-9	24	24	49	12	60
10-14	24	40	63	17	79

¹ Computed as the difference between the infant and neonatal mortality rates

Figure 12.1 Trends in childhood mortality, 2000-2014

Deaths per 1,000 live births

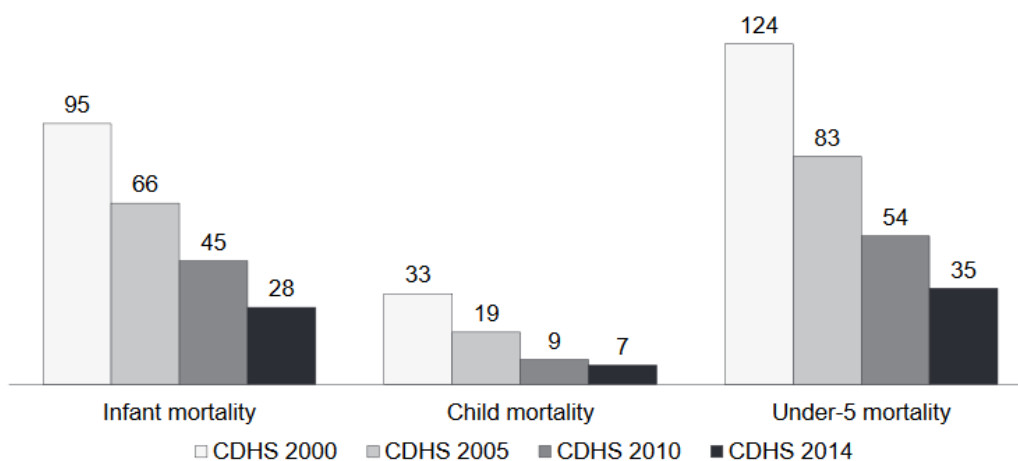


Table 10: Enrollment by Level of Education 2017-2018

Province	Number of Schools	Pre-School		Primary		Lower Sec.		Upper Sec.		Total		%Female	
		Total	Girl	Total	Girl	Total	Girl	Total	Girl	Total	Girl	Primary	All Level
Banteay Meanchey	99	2,839	1,399	11,658	5,716	2,411	1,125	1,103	501	18,011	8,741	49.0	48.5
Battambang	45	1,932	925	4,083	1,974	1,501	749	1,491	746	9,007	4,394	48.3	48.8
Kampong Cham	22	482	220	2,261	1,055	373	182	203	91	3,319	1,548	46.7	46.6
Kampong Chhnang	21	1,485	767	1,758	813	477	165	320	118	4,040	1,863	46.2	46.1
Kampong Speu	36	1,853	848	2,605	1,217	577	253	92	43	5,127	2,361	46.7	46.1
Kampong Thom	19	1,378	681	1,012	469	322	146	106	57	2,818	1,353	46.3	48.0
Kampot	43	986	473	4,944	2,621	1,071	565	1,020	497	8,021	4,156	53.0	51.8
Kandal	29	1,217	632	4,386	2,318	1,475	614	946	429	8,024	3,993	52.8	49.8
Kep	3	54	21	533	317	0	0	0	0	587	338	59.5	57.6
Koh Kong	23	1,032	545	2,208	1,135	350	168	46	16	3,636	1,864	51.4	51.3
Kratie	9	222	109	735	424	0	0	0	0	957	533	57.7	55.7
Mondul Kiri	7	130	67	252	121	0	0	0	0	382	188	48.0	49.2
Otdar Meanchey	6	283	123	1,070	536	0	0	0	0	1,353	659	50.1	48.7
Pailin	18	770	351	1,528	748	0	0	0	0	2,298	1,099	49.0	47.8
Phnom Penh	457	19,609	9,974	57,286	28,416	13,283	6,580	9,988	4,822	100,166	49,792	49.6	49.7
Presh Sihanouk	47	2,261	1,098	3,939	1,862	1,171	553	814	387	8,185	3,900	47.3	47.6
Presh Vihear	4	93	44	177	73	0	0	0	0	270	117	41.2	43.3
Prey Veng	6	134	76	78	37	0	0	133	78	345	191	47.4	55.4
Pursat	7	838	400	1,016	522	0	0	0	0	1,854	922	51.4	49.7
Ratanak Kiri	14	984	496	1,609	721	235	114	19	9	2,847	1,340	44.8	47.1
Siemreap	102	6,671	3,438	5,408	2,478	1,946	934	1,323	664	15,348	7,514	45.8	49.0
Stung Treng	5	351	174	0	0	17	10	10	5	378	189		50.0
Svay Rieng	6	113	54	219	117	0	0	0	0	332	171	53.4	51.5
Takeo	34	1,201	627	1,945	928	509	226	335	193	3,990	1,974	47.7	49.5
Tboung Khmum	14	333	159	1,088	476	210	108	158	88	1,789	831	43.8	46.5
Whole Kingdom	1,076	47,251	23,701	111,798	55,094	25,928	12,492	18,107	8,744	203,084	100,031	49.3	49.3
- Urban Area	880	39,636	20,011	93,224	45,790	22,731	11,102	16,663	8,061	172,254	84,964	49.1	49.3
- Rural Area	196	7,615	3,690	18,574	9,304	3,197	1,390	1,444	683	30,830	15,067	50.1	48.9

Table 16: Teaching Staff by Level of Education and Pedagogical Training

Province	Education Level of Teaching Staff: Total						Education Level of Teaching Staff: Female						Teaching Staff Without Pedagogical Training					
	Primary	L.sec.	U.Sec.	Graduate	Post Graduate	Ph_D	Primary	L.sec.	U.Sec.	Graduate	Post Graduate	Ph_D	Primary	L.sec.	U.Sec.	Graduate	Post Graduate	Ph_D
Banteay Meanchey	0	38	430	554	31	0	0	29	265	280	6	0	0	8	50	51	1	0
Battambang	12	31	228	467	40	1	12	19	169	274	14	0	0	1	5	8	0	0
Kampong Cham	5	23	74	103	9	0	1	17	59	53	0	0	0	0	3	8	0	0
Kampong Chhnang	0	17	195	140	3	1	0	12	147	82	1	0	0	0	9	11	0	0
Kampong Speu	4	20	130	271	19	0	2	16	93	159	9	0	0	0	2	13	1	0
Kampong Thom	2	2	31	70	5	0	2	2	26	40	1	0	0	0	0	1	0	0
Kampot	12	104	147	259	21	0	1	75	81	143	4	0	2	6	9	30	0	0
Kandal	22	47	201	389	30	5	13	37	144	187	11	3	10	1	6	9	0	0
Kep	11	0	7	6	0	0	8	0	3	3	0	0	1	0	0	1	0	0
Koh Kong	0	29	137	21	1	0	0	16	76	7	0	0	0	0	5	2	0	0
Kratie	0	1	4	8	1	0	0	1	3	8	1	0	0	0	0	0	0	0
Mondul Kiri	0	6	7	6	1	0	0	6	7	3	1	0	0	0	0	0	0	0
Otdar Meanchey	1	4	28	2	0	0	1	4	19	1	0	0	0	1	2	0	0	0
Pailin	0	11	50	88	2	0	0	10	38	65	0	0	0	1	8	5	0	0
Phnom Penh	102	380	1,485	4,146	367	8	79	271	1,050	2,367	141	2	0	9	91	426	19	0
Preah Sihanouk	4	15	166	320	16	0	4	11	88	168	3	0	0	0	21	13	0	0
Preah Vihear	1	0	15	3	0	0	1	0	13	2	0	0	0	0	2	0	0	0
Prey Veng	0	7	6	26	3	0	0	7	6	12	0	0	0	0	0	0	0	0
Pursat	0	0	22	46	1	0	0	0	22	46	0	0	0	0	0	0	0	0
Ratanak Kiri	0	3	83	89	0	0	0	3	62	44	0	0	0	0	2	0	0	0
Siemreap	5	53	322	583	74	0	5	36	246	372	40	0	1	4	25	25	1	0
Stung Treng	0	3	10	4	0	0	0	3	4	3	0	0	0	3	3	0	0	0
Svay Rieng	0	3	6	21	0	0	0	3	4	21	0	0	0	0	1	0	0	0
Takeo	2	13	78	116	32	0	2	5	34	49	9	0	0	1	7	13	0	0
Tbaung Khmum	3	5	79	139	6	0	3	2	59	71	0	0	0	0	10	42	0	0
Whole Kingdom	186	815	3,941	7,877	662	15	134	585	2,718	4,460	241	5	14	35	261	658	22	0
- Urban Area	126	641	3,286	6,875	612	9	103	472	2,287	3,959	226	2	1	25	210	553	20	0
- Rural Area	60	174	655	1,002	50	6	31	113	431	501	15	3	13	10	51	105	2	0

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	Primary	L.sec.	U.Sec.	Graduate	Post Graduate	Ph_D	Primary	L.sec.	U.Sec.	Graduate	Post Graduate	Ph_D	Primary	L.sec.	U.Sec.	Graduate	Post Graduate	Ph_D
Banteay Meanchey	0	38	430	554	31	0	0	29	265	280	6	0	0	8	50	51	1	0
Battambang	12	31	228	467	40	1	12	19	169	274	14	0	0	1	5	8	0	0
Kampong Cham	5	23	74	103	9	0	1	17	59	53	0	0	0	0	3	8	0	0
Kampong Chhnang	0	17	195	140	3	1	0	12	147	82	1	0	0	0	9	11	0	0
Kampong Speu	4	20	130	271	19	0	2	16	93	159	9	0	0	0	2	13	1	0
Kampong Thom	2	2	31	70	5	0	2	2	26	40	1	0	0	0	0	1	0	0
Kampot	12	104	147	259	21	0	1	75	81	143	4	0	2	6	9	30	0	0
Kandal	22	47	201	389	30	5	13	37	144	187	11	3	10	1	6	9	0	0
Kep	11	0	7	6	0	0	8	0	3	3	0	0	1	0	0	1	0	0
Koh Kong	0	29	137	21	1	0	0	16	76	7	0	0	0	0	5	2	0	0
Kratie	0	1	4	8	1	0	0	1	3	8	1	0	0	0	0	0	0	0
Mondul Kiri	0	6	7	6	1	0	0	6	7	3	1	0	0	0	0	0	0	0
Otdar Meanchey	1	4	28	2	0	0	1	4	19	1	0	0	0	1	2	0	0	0
Pailin	0	11	50	88	2	0	0	10	38	65	0	0	0	1	8	5	0	0
Phnom Penh	102	380	1,485	4,146	367	8	79	271	1,050	2,367	141	2	0	9	91	426	19	0
Preah Sihanouk	4	15	166	320	16	0	4	11	88	168	3	0	0	0	21	13	0	0
Preah Vihear	1	0	15	3	0	0	1	0	13	2	0	0	0	0	2	0	0	0
Prey Veng	0	7	6	26	3	0	0	7	6	12	0	0	0	0	0	0	0	0
Pursat	0	0	22	46	1	0	0	0	22	46	0	0	0	0	0	0	0	0
Ratanak Kiri	0	3	83	89	0	0	0	3	62	44	0	0	0	0	2	0	0	0
Siemreap	5	53	322	583	74	0	5	36	246	372	40	0	1	4	25	25	1	0
Stung Treng	0	3	10	4	0	0	0	3	4	3	0	0	0	3	3	0	0	0
Svay Rieng	0	3	6	21	0	0	0	3	4	21	0	0	0	0	1	0	0	0
Takeo	2	13	78	116	32	0	2	5	34	49	9	0	0	1	7	13	0	0
Tbaung Khmum	3	5	79	139	6	0	3	2	59	71	0	0	0	0	10	42	0	0
Whole Kingdom	186	815	3,941	7,877	662	15	134	585	2,718	4,460	241	5	14	35	261	658	22	0
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- Rural Area	60	174	655	1,002	50	6	31	113	431	501	15	3	13	10	51	105	2	0

Figure 2: Women Representation in National Assembly 1993-2013 (%)

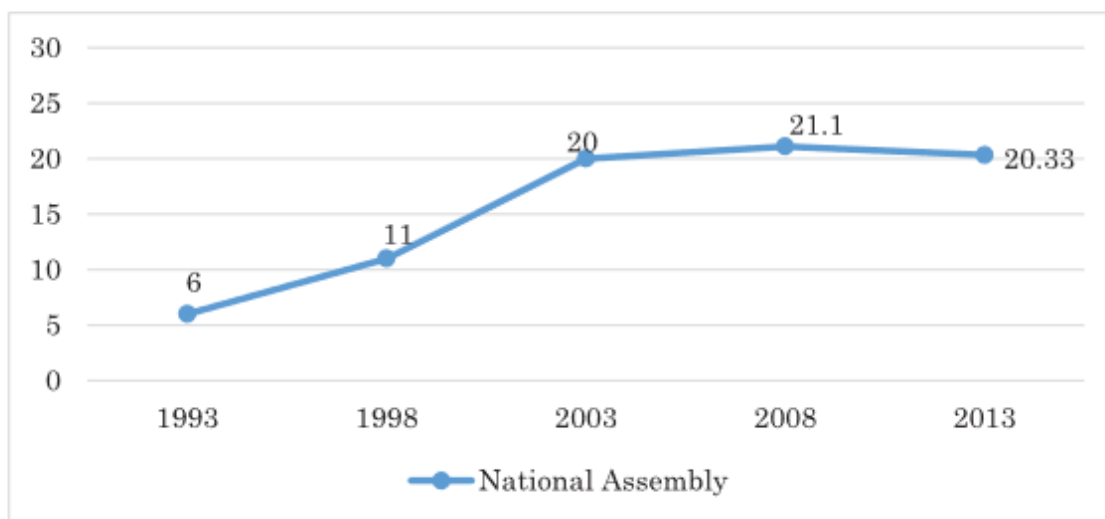
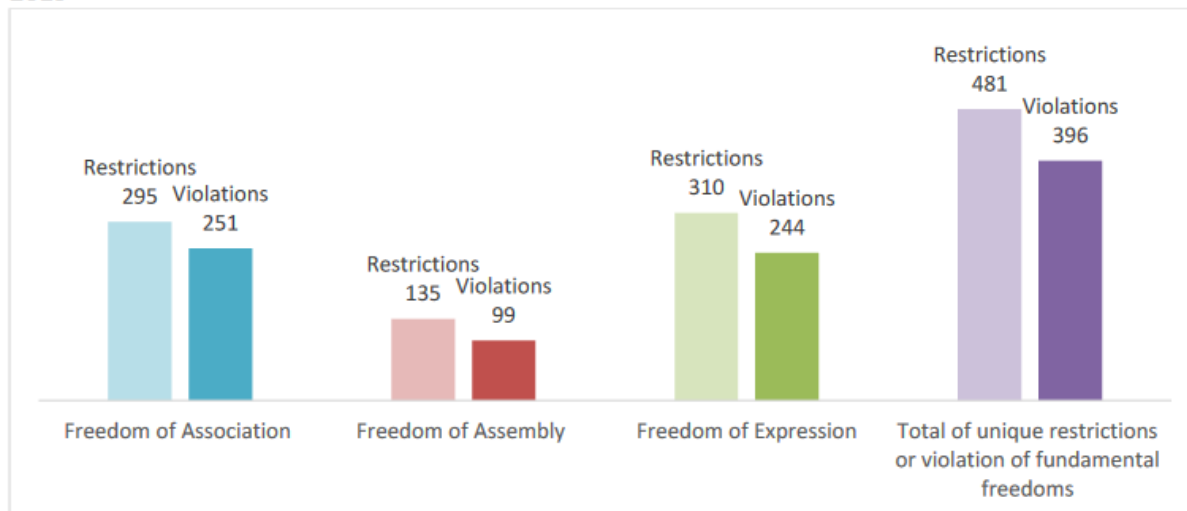


Table 1: Women's Representation by Positions 2008-2013 (%)

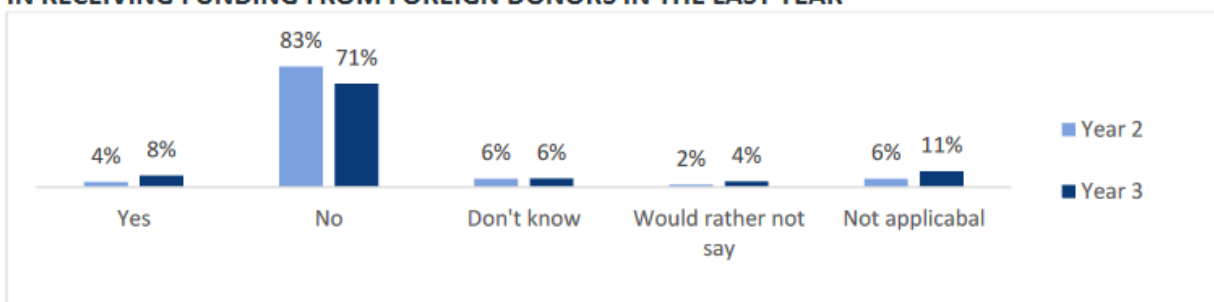
Position	2008	2013
Minister	7.4	10.7
Secretary of State	8.08	20.54
Under Secretary of State	16	17.60

FIGURE 9: RESTRICTIONS AND VIOLATIONS OF FUNDAMENTAL FREEDOMS, APRIL 2018 – MARCH 2019



Source: FFMP Media Monitoring and Incident Reporting Databases, March 2019

FIGURE 15: CSO/TU LEADERS WHO REPORT THAT THEIR CSO FACED GOVERNMENT RESTRICTIONS IN RECEIVING FUNDING FROM FOREIGN DONORS IN THE LAST YEAR⁹⁶



Source: FFMP CSO/TU Survey, December 2017, January 2019

Group 6: Environment/Agriculture: [Census of Agriculture 2013](#) - World Bank report (pg 11)

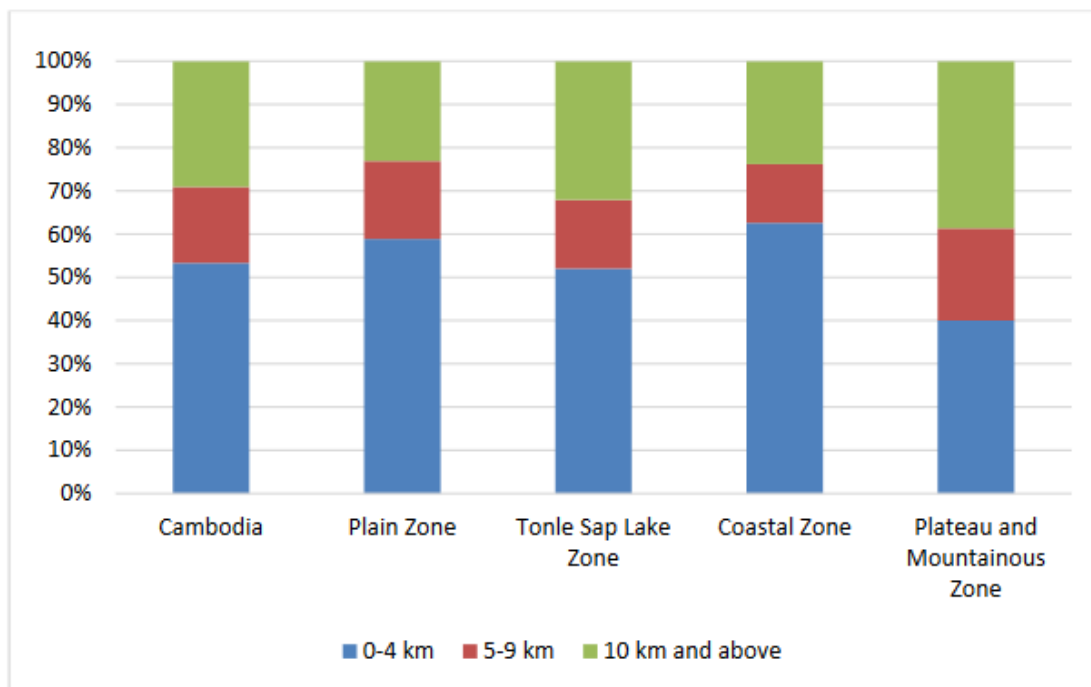


Figure 2.2 Percentage of villages reporting various distances to nearest national road.
Source: NIS-MoP, Census of Agriculture in Cambodia 2013