Welcome to Presentation
on
Disaster Impacts on Health and Sanitation System in Bangladesh :

Presented by

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Background: Country Context

Bangladesh has recognized globally as one of the most vulnerable countries to Climate Change and Natural Disaster:

- **Population: 160.80** Million (2016),
- **Population density: 1090**/km2 (2016)
- **Geographical location and Area: 147** Thousand sq. km
- **Multiplicity of rivers: 405** rivers, **57** trans-boundary river (BWDB)
- **Deltaic landscape: 80%** floodplain
- **Population in Disaster Prone Area:12.64 %** (ICCHL, 2015)
- **Population in Urban Area: 23.43 %** (2011 P. Census)
- **Average Life Expectancy: 71.6** (Male-70.3, Female-72.9) (2016)
- **Per Capita Income: USD$ 1602** (2016-17)
- **GDP Growth Rate: 7.24 (P) %** (2016-17)
- **Annual Inflation Rate: 5.44 %** (2016-17)
- **Poverty rate:** (Upper **23.2 %** and extreme **12.9 %** April-June 2016)

Vulnerability to different Natural Hazards
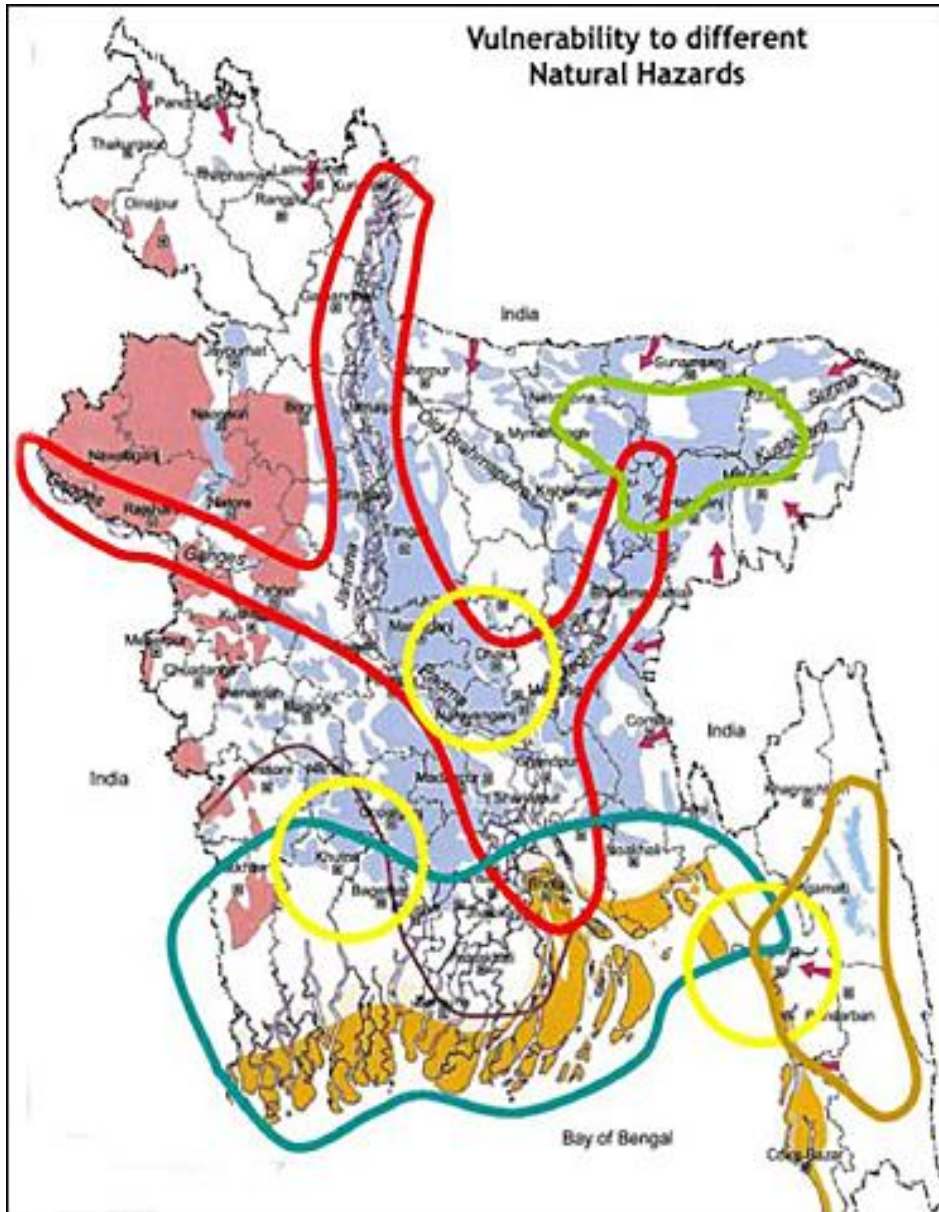
Inventory of the Vulnerable Areas for

1. Droughts (pink),
2. Floods (light blue),
3. Surges (yellow ochre) and
4. Hot Spots related to large rivers (in red),
5. Coast (blue), Urban centres (yellow),
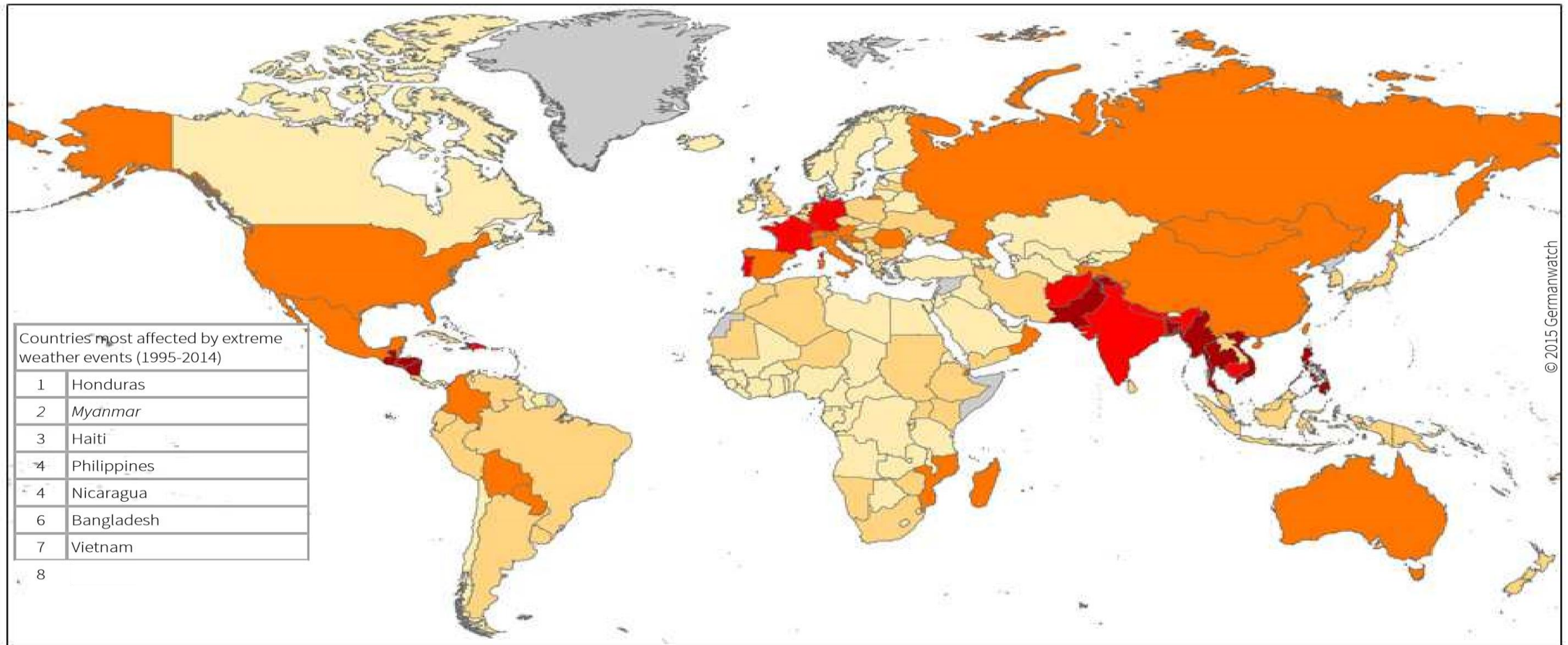6. Haor/Wetlands (green) and
7. Hill tracts/Soil erosion (yellow (ochre).

Source: Bangladeshi Centre for Environmental and Geographic Information (CEGIS)

Background (Word Risk Report-2016)

CRI 1995–2014 (1994–2013)	Country	CRI score	Death toll	Deaths per 100 000 inhabitants	Total losses in million US$ PPP	Losses per unit GDP in %	Number of events (total 1995–2014)
1 (1)	Honduras	11.33	302.75	4.41	570.35	2.23	73
2 (2)	Myanmar	14.17	7 137.20	14.75	1 140.29	0.74	41
3 (3)	Haiti	17.83	252.65	2.76	223.29	1.55	63
4 (5)	Philippines	19.00	927.00	1.10	2 757.30	0.68	337
4 (4)	Nicaragua	19.00	162.30	2.97	227.18	1.23	51
6 (6)	**Bangladesh**	**22.67**	**725.75**	**0.52**	**2 438.33**	**0.86**	**222**
7 (7)	Vietnam	27.17	361.30	0.44	2 205.98	0.70	225
8 (10)	Pakistan	31.17	487.40	0.32	3 931.40	0.70	143
9 (11)	Thailand	32.33	164.20	0.25	7 480.76	1.05	217
10 (9)	Guatemala	32.50	83.35	0.66	407.76	0.50	88

The Long-Term Climate Risk Index (CRI): the 10 countries most affected from 1995 to 2014 (annual averages)

Countries most affected by extreme weather events (1995-2014)

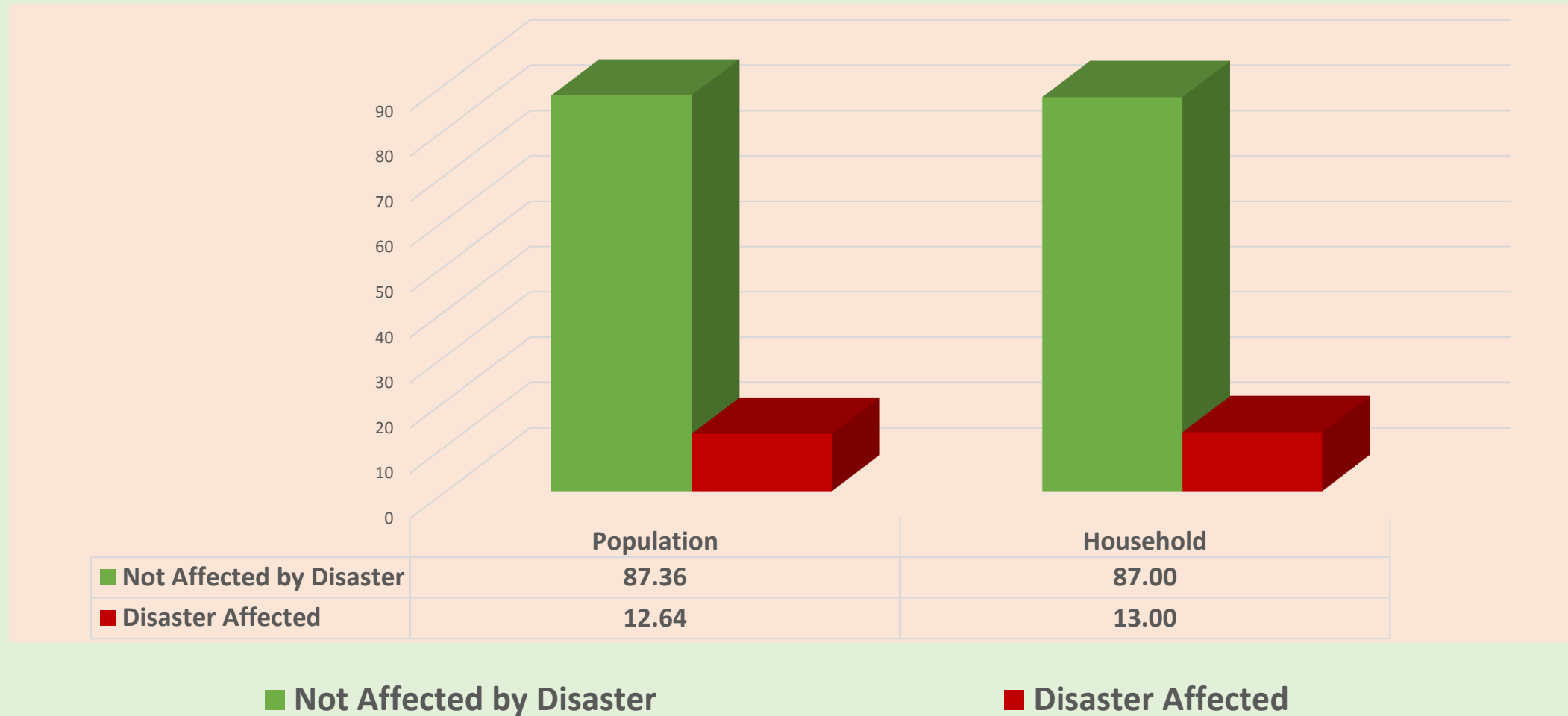|	
1	Honduras
2	*Myanmar*
3	Haiti
4	Philippines
4	Nicaragua
6	Bangladesh
7	Vietnam
8	

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Cursive: Countries where more than 90% of the losses/deaths occurred in one year/event

Climate Risk Index: Ranking 1995 – 2014

1 - 10   11 - 20   21 - 50   51 - 100   > 100   No data

Household and Population live in Disaster Prone Area

	Population	Household
■ Not Affected by Disaster	87.36	87.00
■ Disaster Affected	12.64	13.00

■ Not Affected by Disaster   ■ Disaster Affected

About 13 % Household and 12.64 % Population live in disaster prone area of the country. Source: ICCHL 2015

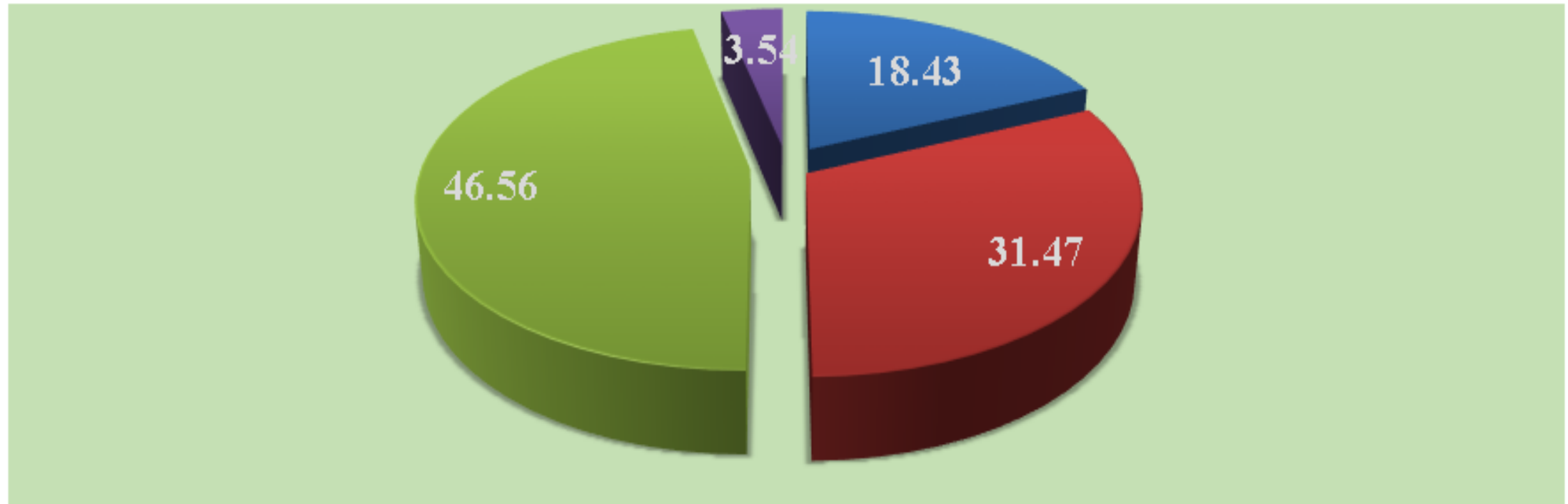# Drinking Water by Source in Disaster Prone Areas
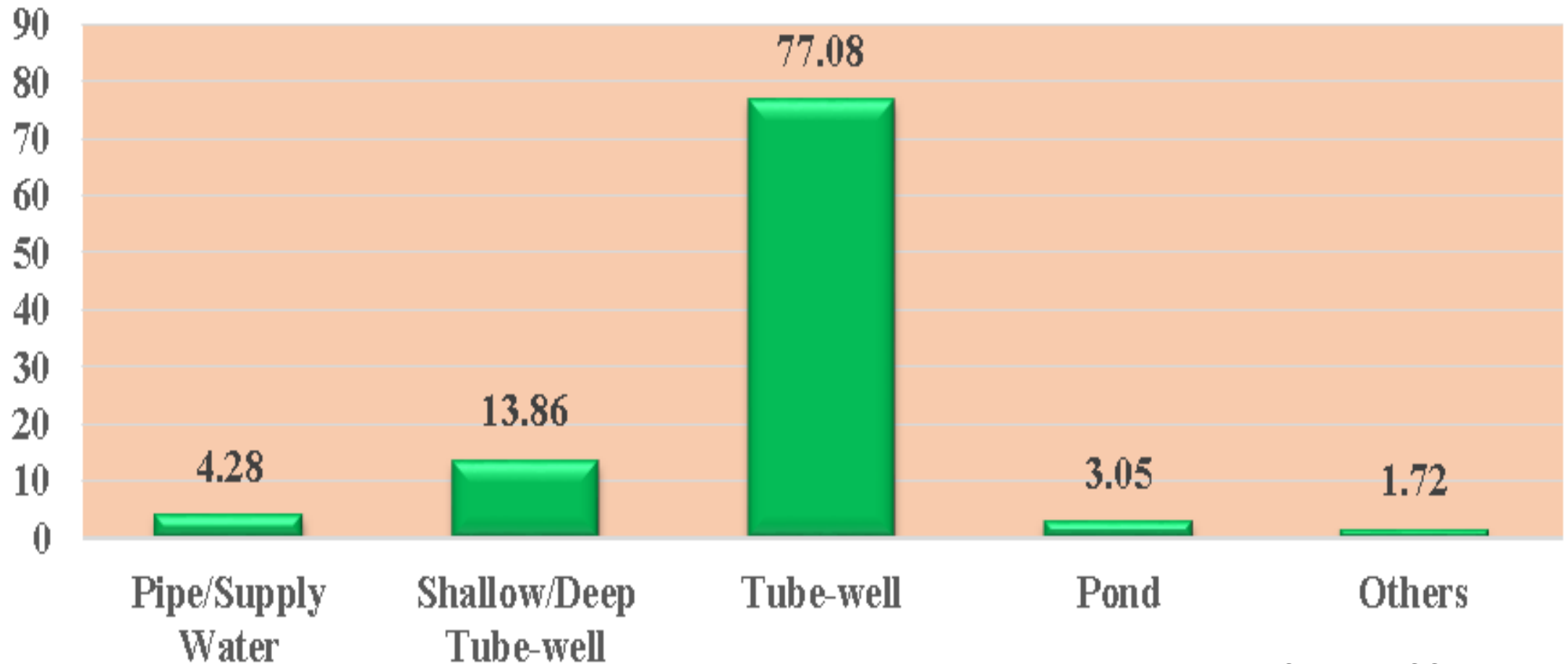
Source: ICCHL 2015

Pipe/Supply water + shallow/deep tube-well + Tube-well=95.23%, Pond + Others=4.77% source of drinking water in disaster prone area where national figure is 97.80 % and 2.20 (SVRS 2014)

Toilet Facilities by Type in Disaster Prone Areas

- Pucca (Water Sealed): 18.43
- Pucca (Non-water Sealed): 31.47
- Kutcha: 46.56
- Open Space: 3.54

Total Pucca (Water Sealed+Non Water Sealed) 49.90 %, Kutcha (Mud built) 46.56, Open Space 3.54 toilet facilities in disaster prone area where national figure of total pucca 63.50%, Kutcha 34.40 % and open space 2.10 % (SVRS 2014)

Source: ICCHL 2015

Sickness and Injury in Disaster Prone Area, 2009-14

Division	Total	Sickness		Injury	
		Male	Female	Male	Female
1	2	3	4	6	7
Bangladesh	1890734	52.40	47.60	58.12	41.88
Barisal	229251	6.40	5.72	7.59	5.45
Chittagong	239272	6.80	5.85	11.81	5.99
Dhaka	396412	11.22	9.75	8.45	6.98
Khulna	245308	6.64	6.33	10.25	5.84
Rajshahi	305726	8.57	7.60	9.15	6.74
Rangpur	228204	6.11	5.96	4.15	5.11
Sylhet	246562	6.65	6.39	6.72	5.76

Source: ICCHL 2015

Insufficient Supply of Drinking Water during/ after Disaster Period
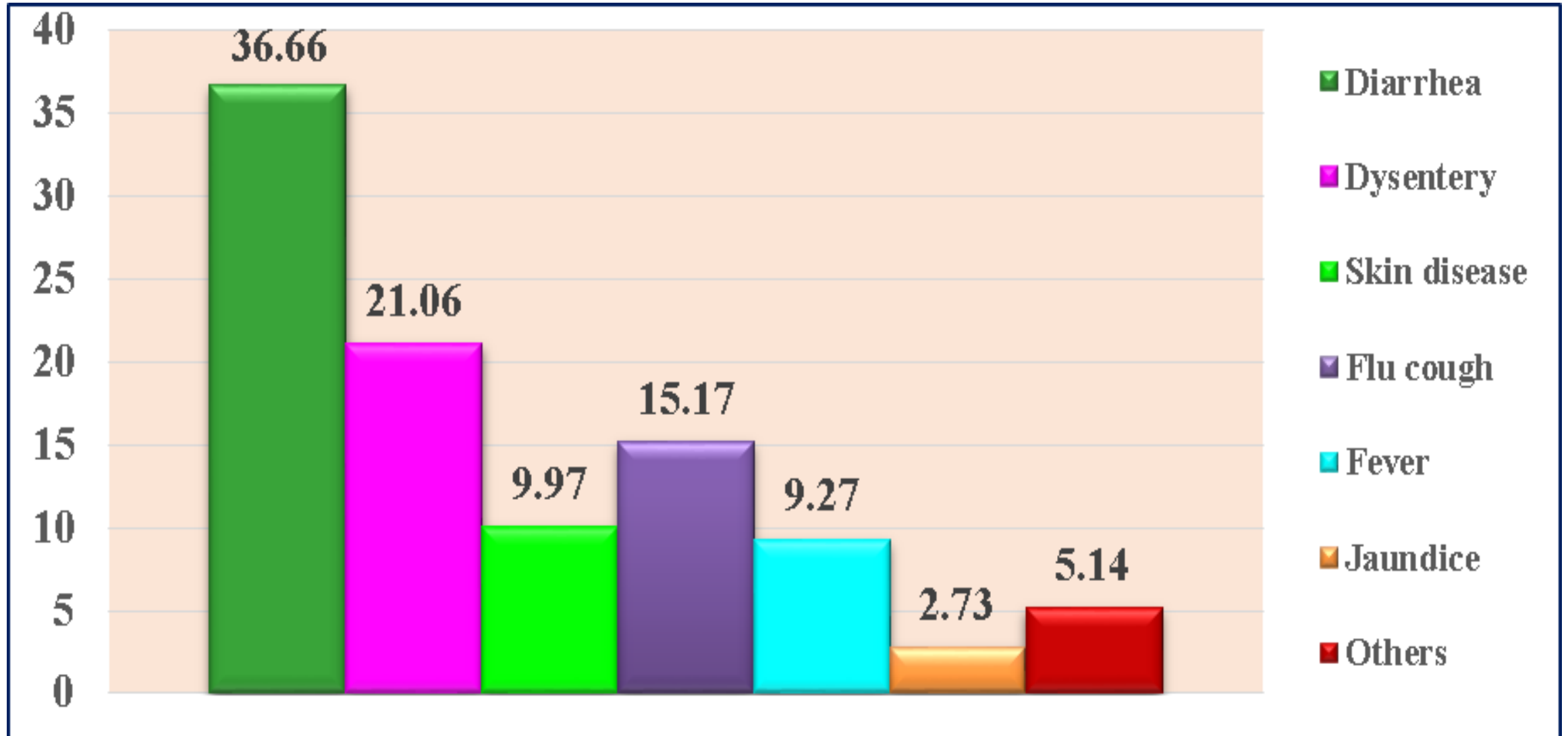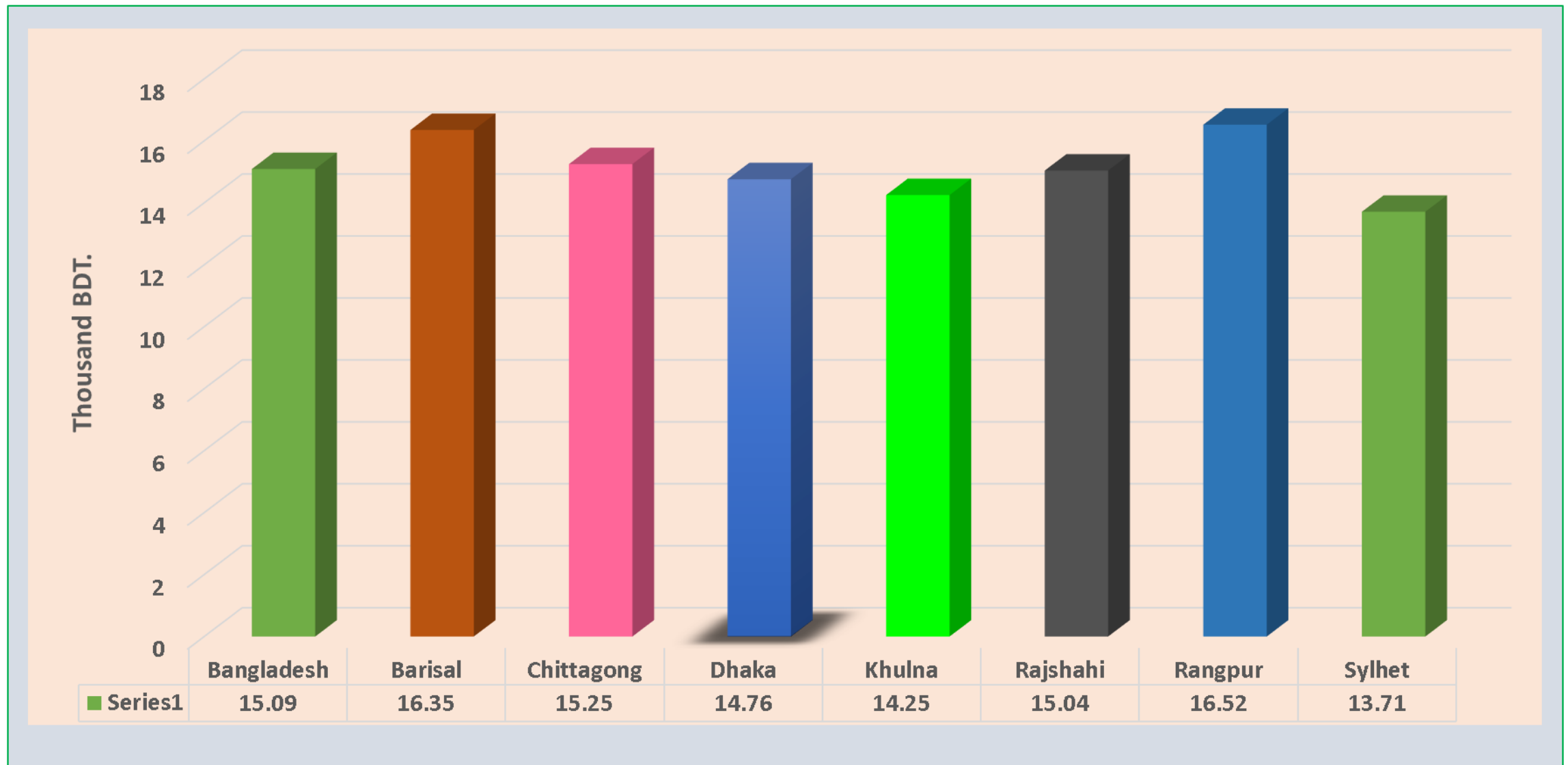

Source: ICCHL 2015

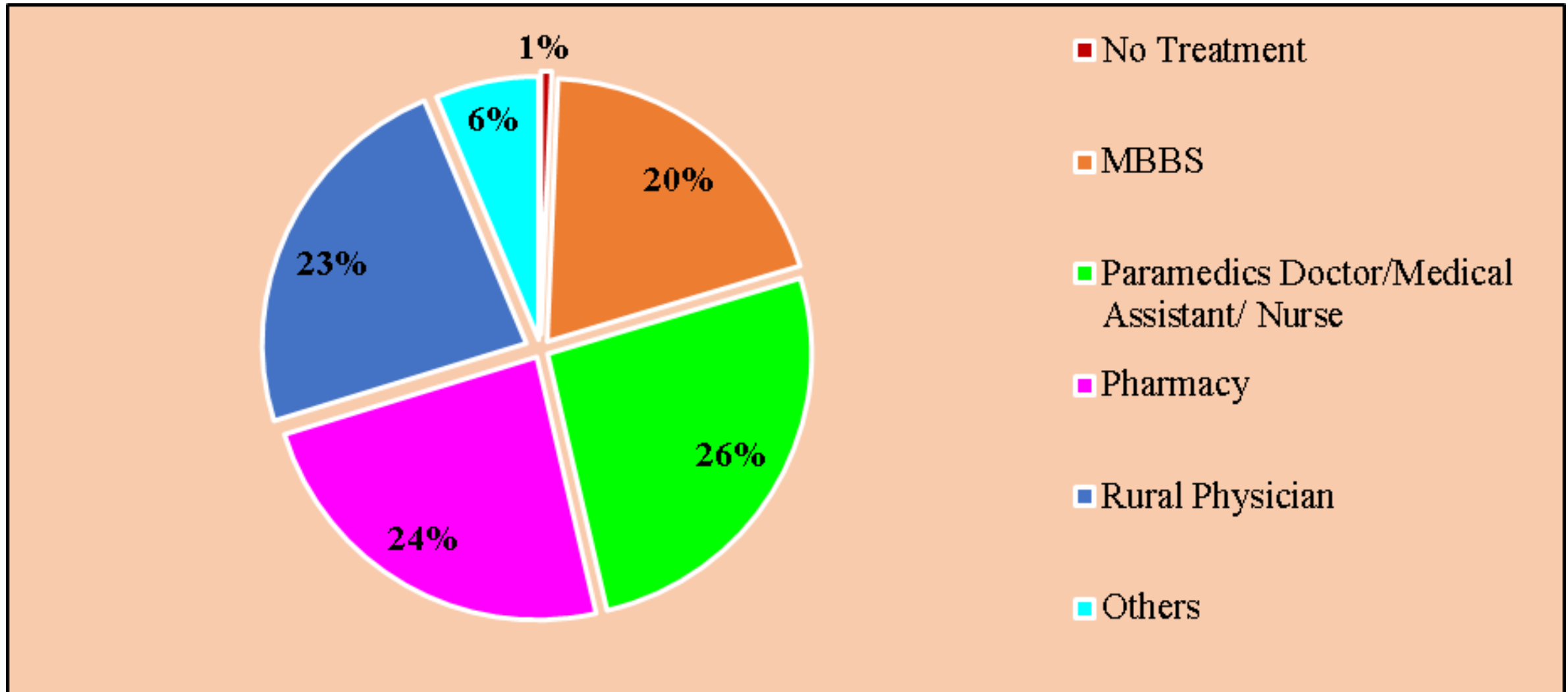# Treatment of Disease by facilities, 2009-'14
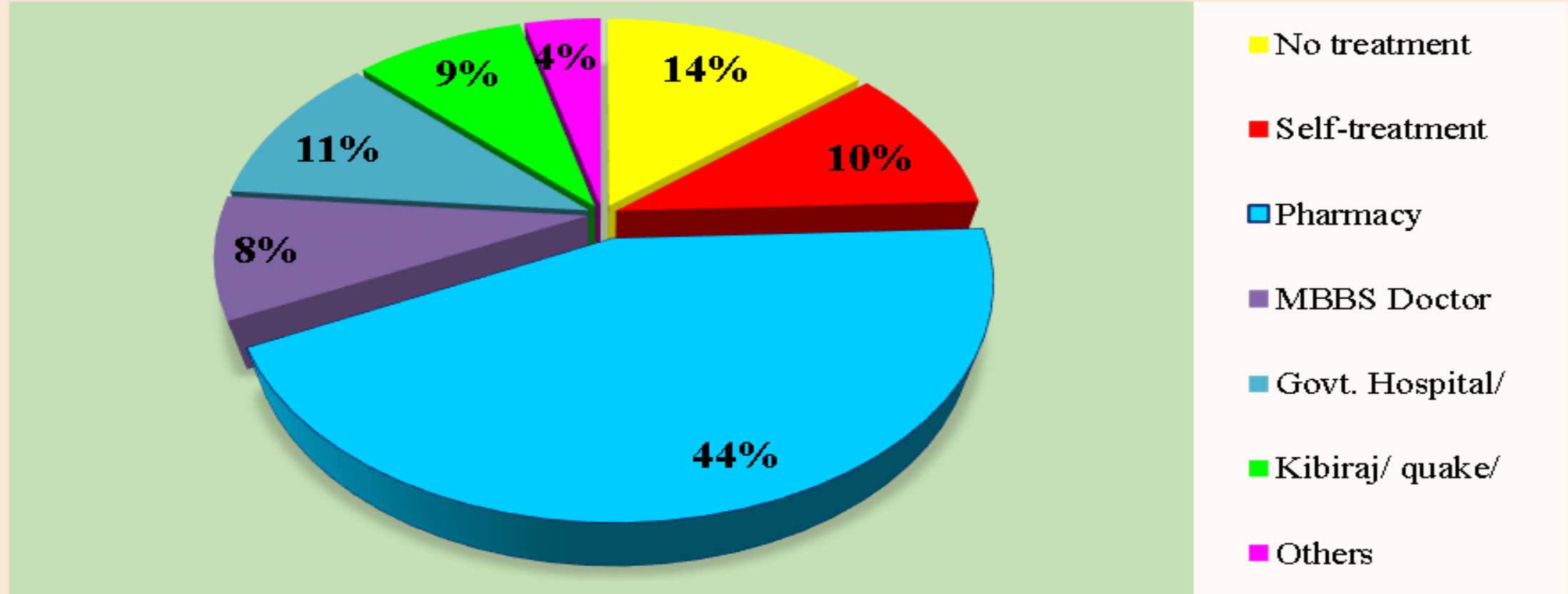
Source: ICCHL 2015

Health Expenditure of Sick Children

	Bangladesh	Barisal	Chittagong	Dhaka	Khulna	Rajshahi	Rangpur	Sylhet
■ Series1	15.09	16.35	15.25	14.76	14.25	15.04	16.52	13.71

Y-axis: Thousand BDT.

Source: ICCHL 2015

Sick children received treatment by type of facilities, 2009-'14.

Pie chart:
- No Treatment: 1%
- MBBS: 20%
- Paramedics Doctor/Medical Assistant/ Nurse: 26%
- Pharmacy: 24%
- Rural Physician: 23%
- Others: 6%

Source: ICCHL 2015

Sanitation System of Bangladesh

Indicator	Urban	Rural	Slum
1	2	3	4
Estimated Population	38 million	112 million	7 million
Under 5 Child Mortality (per 1000 live births)	53	66	95
Percentage of households using improved sanitation facilities	54%	54%	9%
Use of open or "hanging latrines"	2%	5%	10%
Net attendance ratio in primary education	64%	81%	65%
Net attendance ratio in secondary education	53%	48%	18%
Estimated investment need for urban water supply between 2010 – 2015	USD 2.36 billion	USD 0.64 billion	NA

Toilet Facilities in Slum Areas of Municipalities
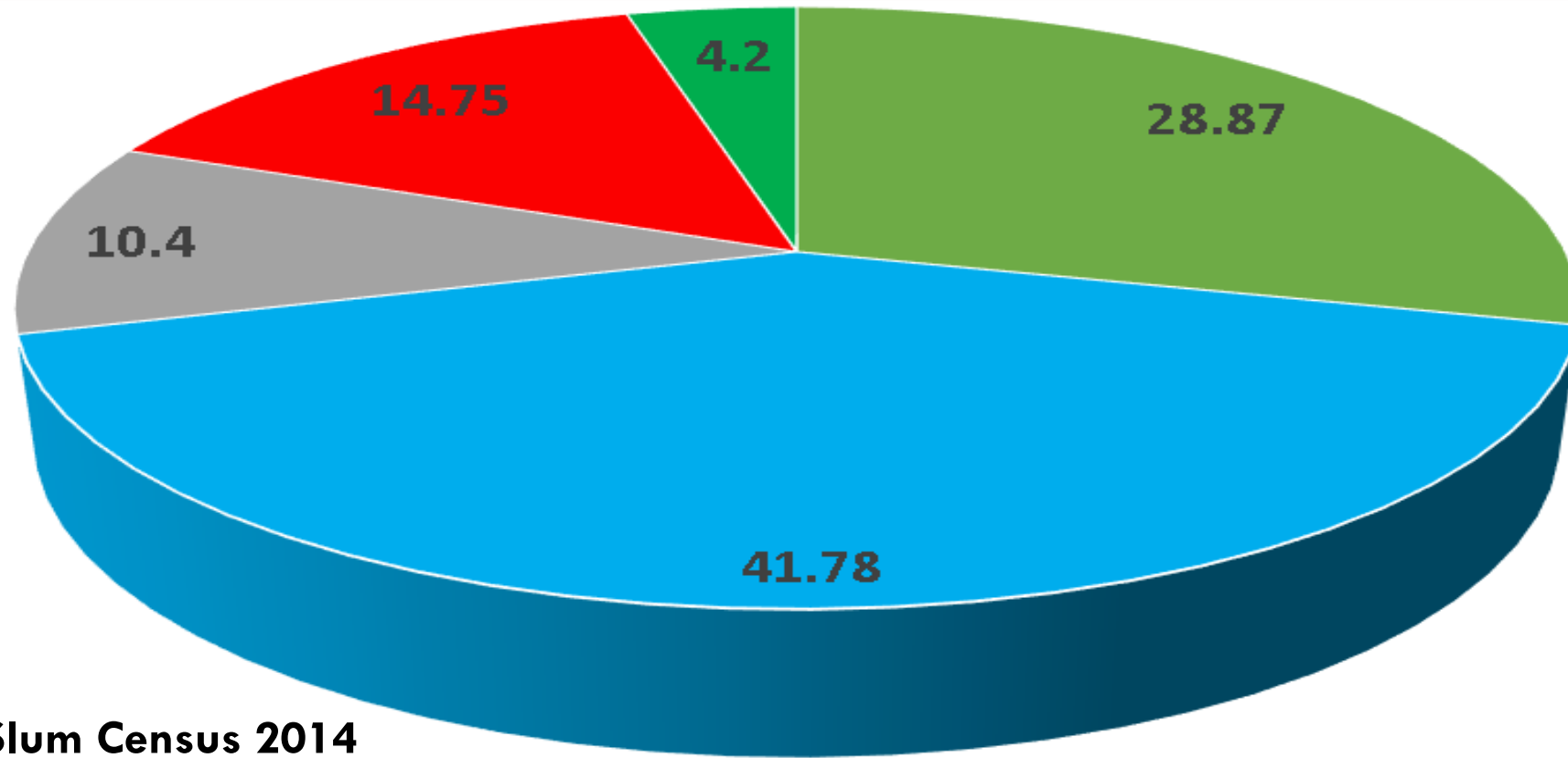
Source: Slum Census 2014

Legend: Sanitary (water sealed) 28.87 — Pit 41.78 — Tin 10.4 — Hanged/katcha 14.75 — Others/openspace 4.2

Availability of data (by no. of Indicators) against SDG 1 & SDG 11

Chart legend: Readily Available, Partially Available, Not Available

SDG	Readily Available	Partially Available	Not Available
1	5	6	1
2	5	9	0
3	12	10	4
4	2	6	3
5	8	4	2
6	2	4	5
7	1	4	1
8	5	9	3
9	5	6	1
10	7	3	3
11	2	8	5
12	0	4	9
13	1	2	4
14	1	3	6
15	3	6	5
16	4	10	9
17	7	16	2
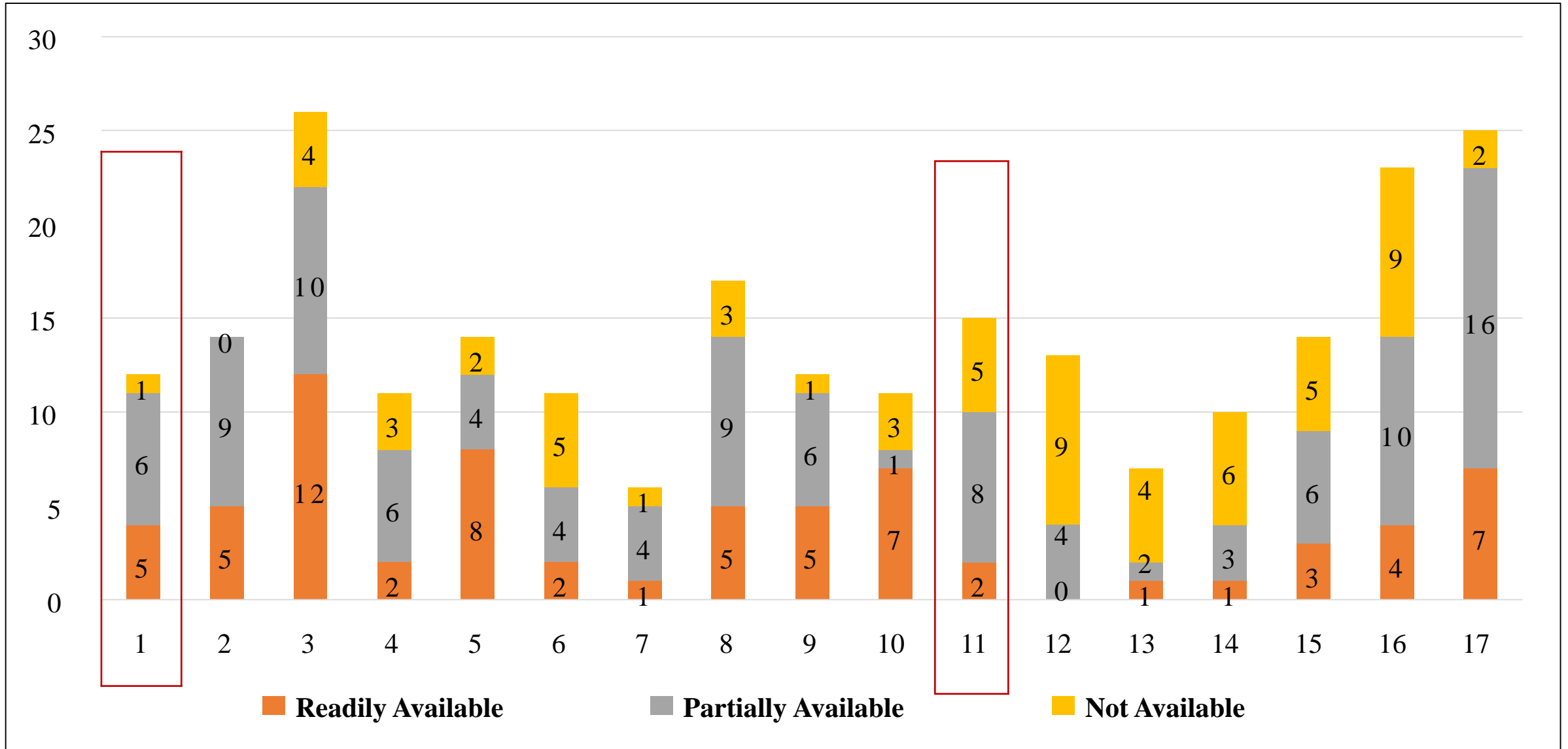
Availability of data (two Indicators) against SDG 1 & SDG 11

By 2030, build the resilience of the poor and those in vulnerable situations and reduce their exposure and vulnerability to climate-related extreme events and other economic, social and environmental shocks and Disasters

Two Indicators	Baseline 2015	Milestone for 2030	Remarks
Number of deaths, missing persons and directly affected persons attributed to disasters per 100,000 population	Affected Persons: 12,881 per 100,000 people in 2014 (ICCHL, 2015, BBS)	1500	Next round of ICCHL of BBS will cover (a) no of deaths (b) no of missing persons
Direct economic loss attributed to disasters in relation to global gross domestic product (GDP)	1.3% of Bangladesh's GDP in 2014 (ICCHL, 2015, BBS)	< 1.0% of GDP	-

Ongoing efforts

❖Developed **"Statistical Templates and Tabulation Plan"** for "**Compilation of Bangladesh Environmental Statistics 2017"** under UNFDES and BESF 2016-2030;

❖Initiated Piloting of the **"Poverty Environment Accounts (PEA)"** by BBS in partnership with UNDP and UNPEI under UNSEEA and BESF 2016-2030;

❖Submitted the "**Strengthening Capacity Building for Producing Environment, Climate Change and Disaster Statistics (ECDS) 2018-2023** to the Government of Bangladesh under BESF 2016-2030;

❖Formed a "**Inter-Ministerial Technical Working Committee"** for preparing and producing "Environment, Climate Change and Disaster Statistics" in BBS;

❖Established **"Environment, Climate Change & Disaster Statistics (ECDS) Cell** in BBS as regular basis;

❖Published the result of **DRSF** with Fiji, Indonesia and the Philippines by **UNESCAP;**

❖ Signed **Letter of Agreement (LOA) between UNDP and BBS** for strengthening capacity building of Environment Statistics in BBS.

Challenges: Data Support to SDGs and SFDRR

❑ **Disaster Statistics** fields have various problems with accessibility, quality and timeliness of data;

❑ Difficult to **fix a reference** year and baseline of Disaster-related Statistics;

❑ **Complex** coordination, participation and accountability among BBS and other Sectoral Agencies/ Organizations;

❑ **Integration** in national planning process and development of **institutional mechanism** for implementation;

❑ Requirement for **financial** resources an**d manpower** **with** **technical assistance** for developing new surveys and capacities;

❑ Introduction of **modern technology in collection** of statistical data and quick dissemination

❑ Challenges in the development while maintaining **statistical independence**;

Way Forward

➢ Ensuring the **complementary collaboration** among ESCAP and others UN Agencies of all Expert Groups and National Statistical Offices (NSOs);

➢ **Technical and financial support** should be provided by ESCAP and others UN Agencies for institutionalization of Environmental Statistics system in BBS;

➢ Especial considering the **importance to Disaster-related data and information**;

➢ Disaster-related Statistics should be prepared and updated in **every 3-5 reference year**;

➢ **Sharing and reporting** Disaster-related Statistics by bi-lateral and multi-lateral technical with render cooperation, and contribute to the ongoing development of environmental Statistics in BBS;

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