

NEPAL ENGINEER'S ASSOCIATION (NEA) WEEKLY TALK PROGRAMME



Impacts of Basic Sanitation in Nepal and Way Ahead for Safely Managed Sanitation

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Ministry of Water supply (MOWS)

Date : 23 MAY , 2025 , FRIDAY



Presentation Outline

- ❖ Introduction cum Motivational slides
- ❖ Key factors of Open Defecation Free (ODF)
- ❖ Impact of Basic Sanitation in Nepal
- ❖ Child mortality Rate of Nepal
- ❖ Way forward : City wide Inclusive Sanitation (CWIS) & FECAL Sludge Management (FSM)
- ❖ Conclusions

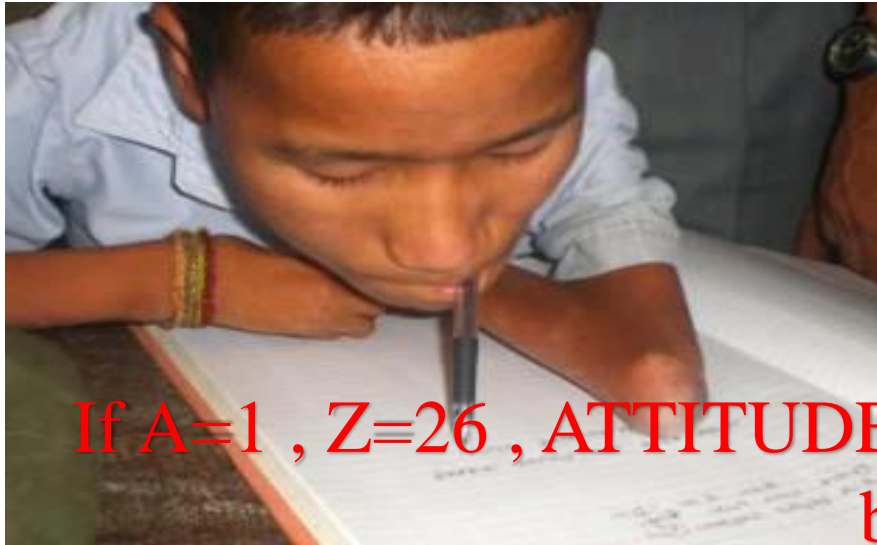


Sanitation is More Important
than Independence

- Mahatma Gandhi

जता ततै सम्भावनै सम्भावनाहरु छन्

You never know how strong you are until being strong is the **ONLY** option you have left.



If A=1 , Z=26 , ATTITUDE = 100 , Positive attitude is the best)

Long term Vision : Government of Nepal

WATER IS LIFE

SANITTAION IS A WAY OF LIFE

HYGIENE IS THE KEY TO HEALTHY LIFE

Long term Vision : government of Nepal

“ HAPPPY NEPALI , PROSPEROUS NEPAL ”



In WASH sector unto BS 2100 B.S

sustainable Development Goal (SDG) no : 6

Safely Managed Water Supply : 100 Percent

Safely managed sanitations : 100 percent

16 TH PERIODIC PLAN vs. Achievement

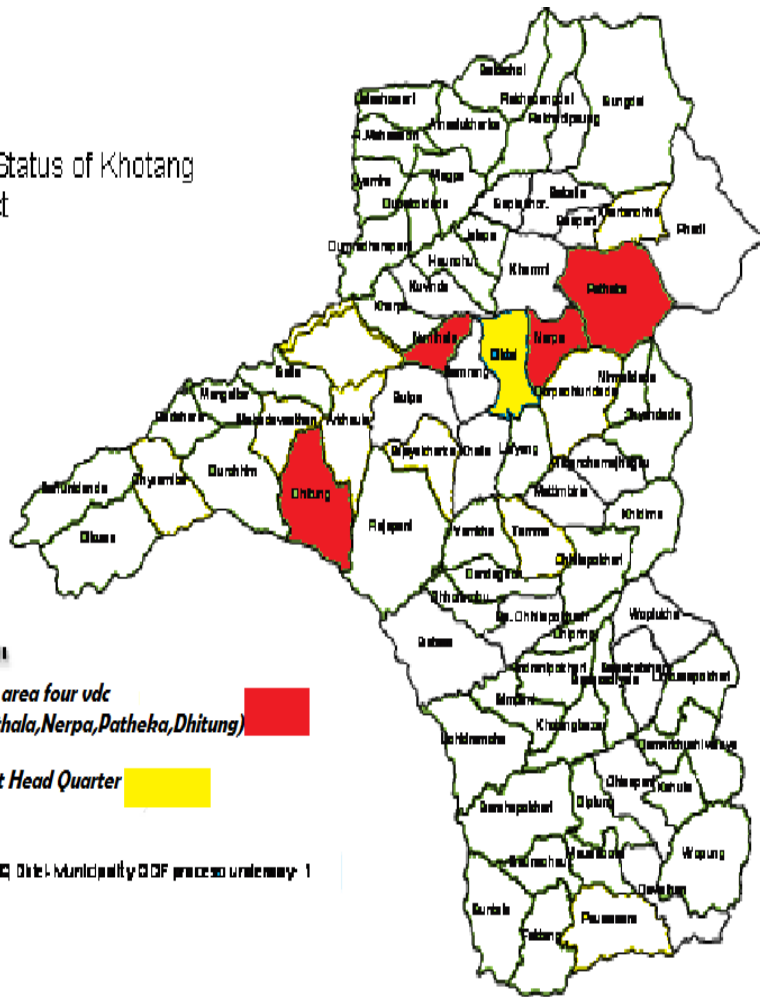
Sn o	Description	Goal-16 TH	Achievement	SDG Goal	Remarks
1	Medium / High Level Water supply	45	27	90	DWSSM Data
2	Basic Sanitation	99	94.5 = 95	99	2078 Census data
3	Safely Managed Sanitation	65	61	90	FSM/ sewer : 5 Septic tank (not Overflowing : 56 sewerage : 2.34 FSM : 2.66

NEPAL Country declared Basic sanitation (Open defecation Free : ODF at 30 sep : 2019 (Ashoj :13, 2076)

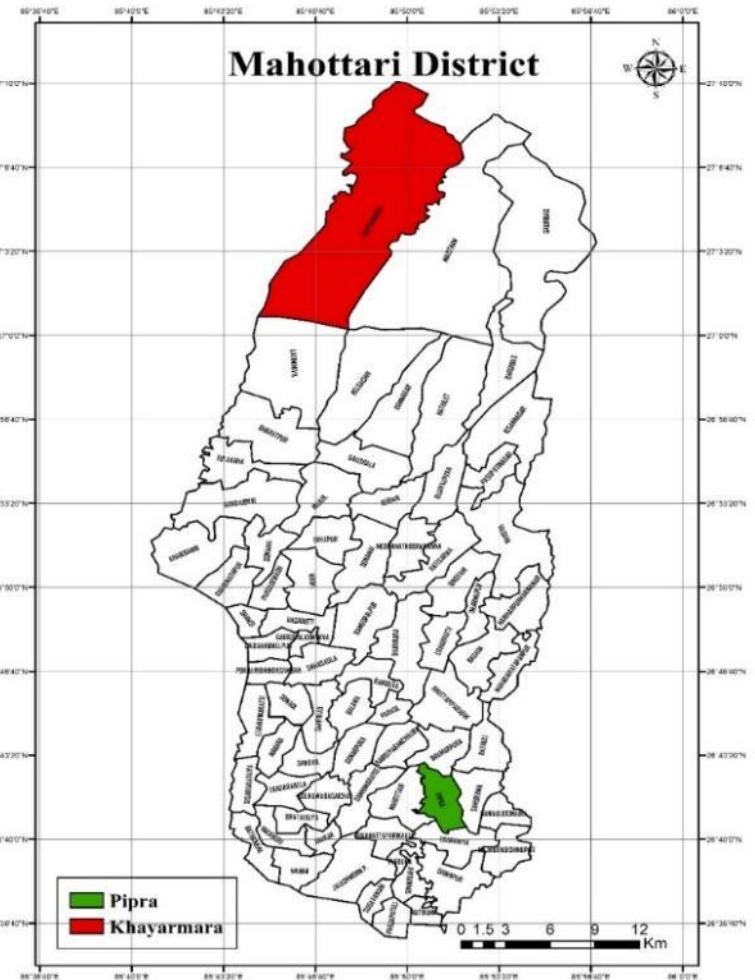


Study Area (Basic Sanitation) :khotang & Mahottari

ODF Status of Khotang District



KHOTANG DISTRICT



MAHOTTARI DISTRICT

Key factors of ODF/Basic Sanitation

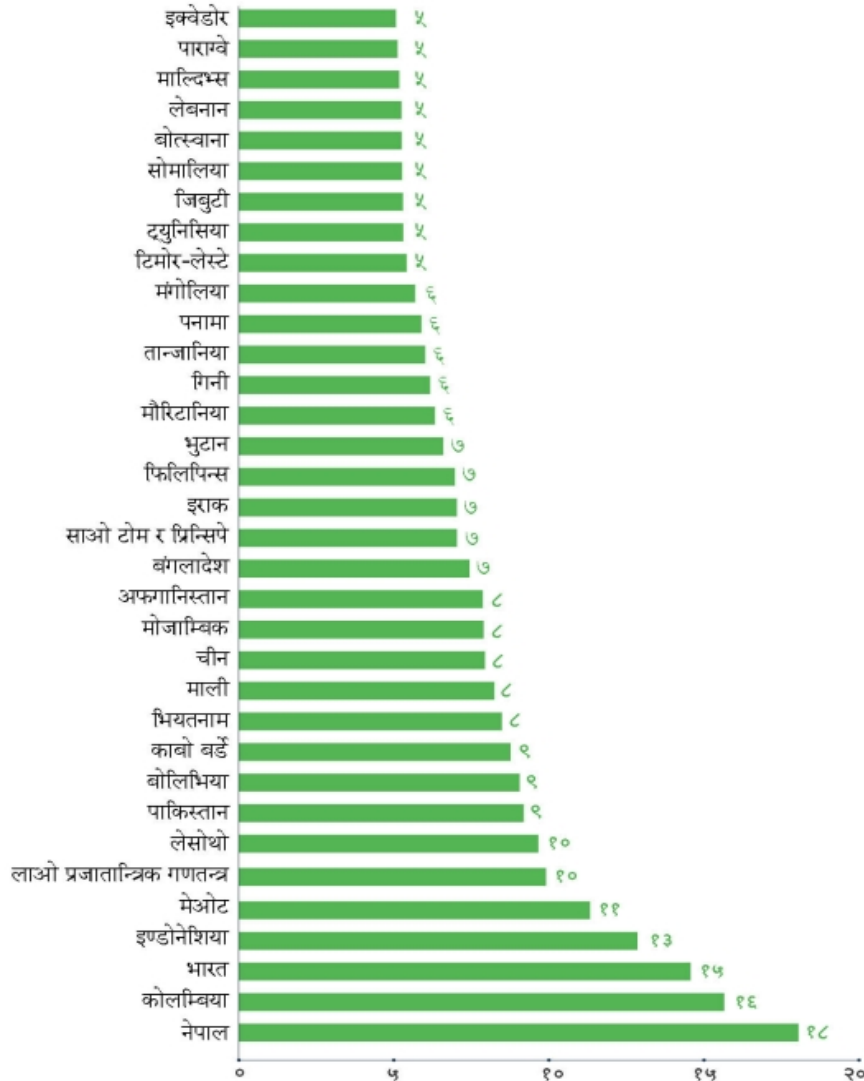
Key finding of My Research

Basic sanitation = Open defecation Free (ODF)
=3(C+E+Ps) + I or 3C + 3 E +3E + I

- ❖ C-COMMITMENT – By Basic Sanitation Hygiene Master Plan -2011
- ❖ C-CO-ORDINATION – with all stakeholders.
- ❖ C-COMMUNICATION – J-WASH–CC (Journalism)
- ❖ E-EDUCATION – Built Importance of Toilet in mind
- ❖ E-ENGINEERING – Design, Drawing of Toilet
- ❖ E-FNFORCEMENT – Enforce or Danda by Police
- ❖ P-Political Will – As neighbors country Leader
- ❖ P-People participation
- ❖ P-Pro-active Administration (As an advisor of D-WASH-CC)
- ❖ I- Incentive for Ultra Poor

BASIC SANITATION COVERAGE of Nepal ; 1ST SOUTH ASIA , 2ND In 49 countries , (22 PERCENT .. BIG ACHIEVEMENT OF NEPAL AS PER JMP REPORT -2015 to2000)

सन् २०१५ देखि सन् २००० का बीचमा आधारभूत सरसफाइमा न्यूनतम ५ प्रतिशतले वृद्धि गर्ने विश्वका ३४ देशहरू



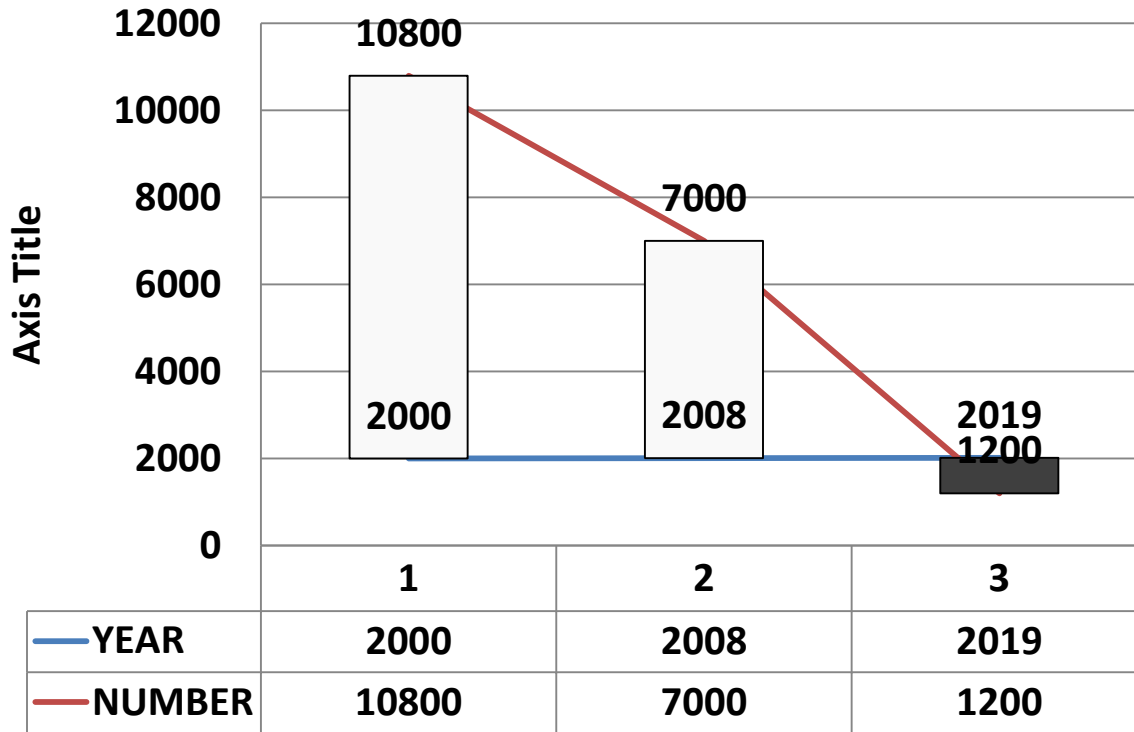
Impact No : 1

Nepal is 1ST Country in SOUTH ASIA BASIC SANITATION COVERAGE of Nepal ; 1ST SOUTH ASIA , 2ND In 49 countries , (22 PERCENT .. BIG ACHIEVEMENT OF NEPAL AS PER JMP REPORT of WHO & Unicef - 2015 TO 2000)

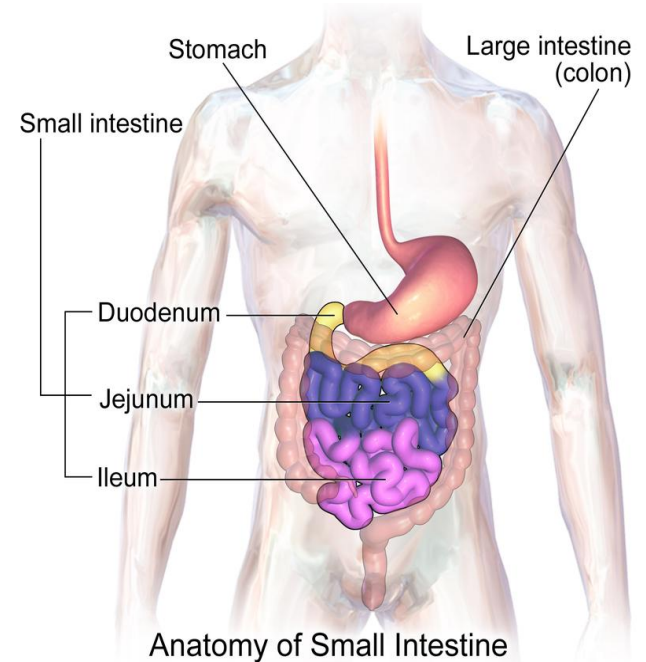


YEAR AND CHILD MORTALITY IN NEPAL (DEMOGRAPHY SURVEY -2016 JMP BY WHO & UNICEF (child saving 30 to 4= 26 per day)

— YEAR — NUMBER



IMPACT NO 2 Decreasing of Child Mortality rate 26 child's per day BELOW 5 YRS)

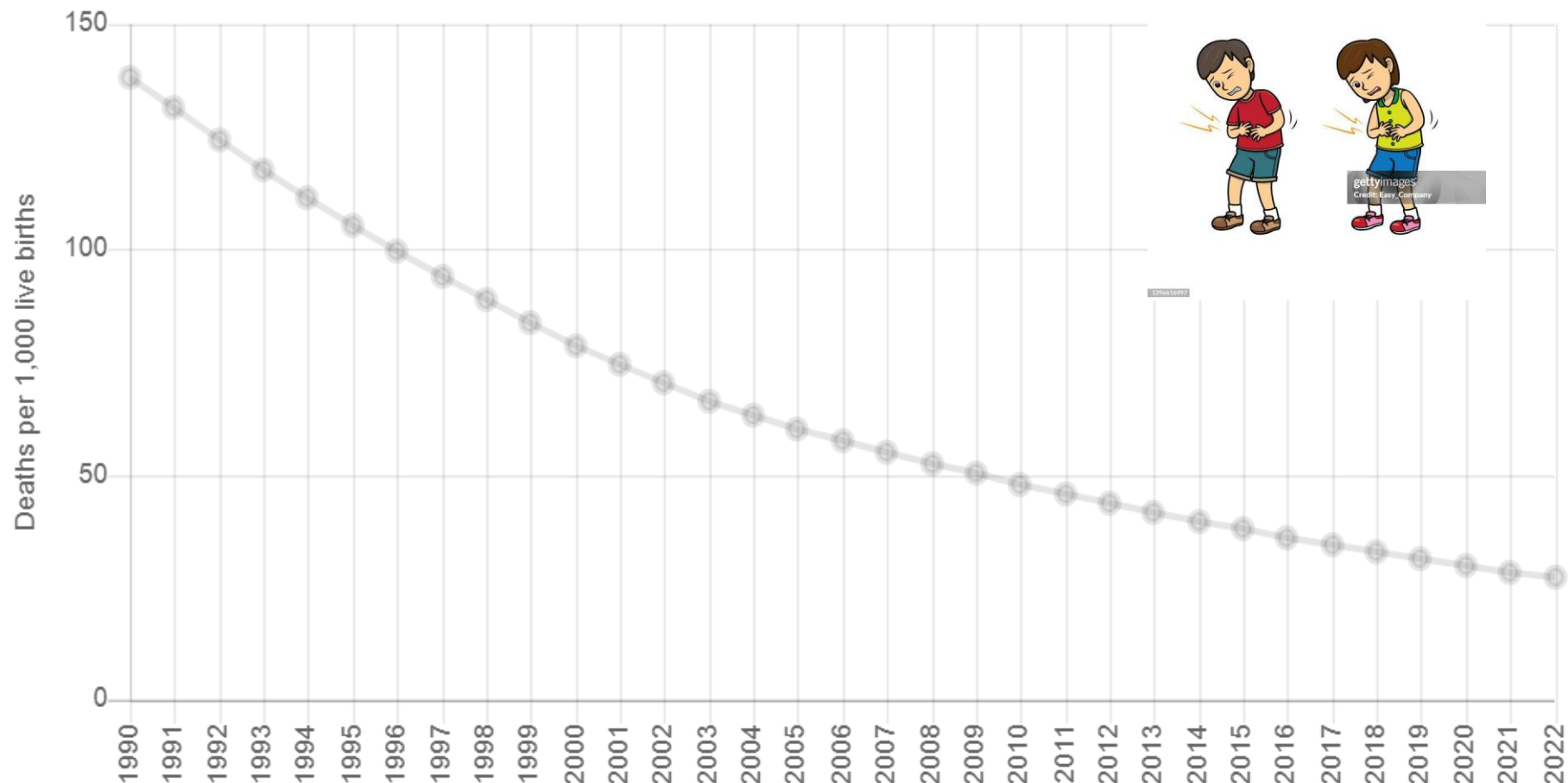


Causes of Death of Child) Ref : Mark ellary , , consulatanta

CHILD MORTALITY RATE



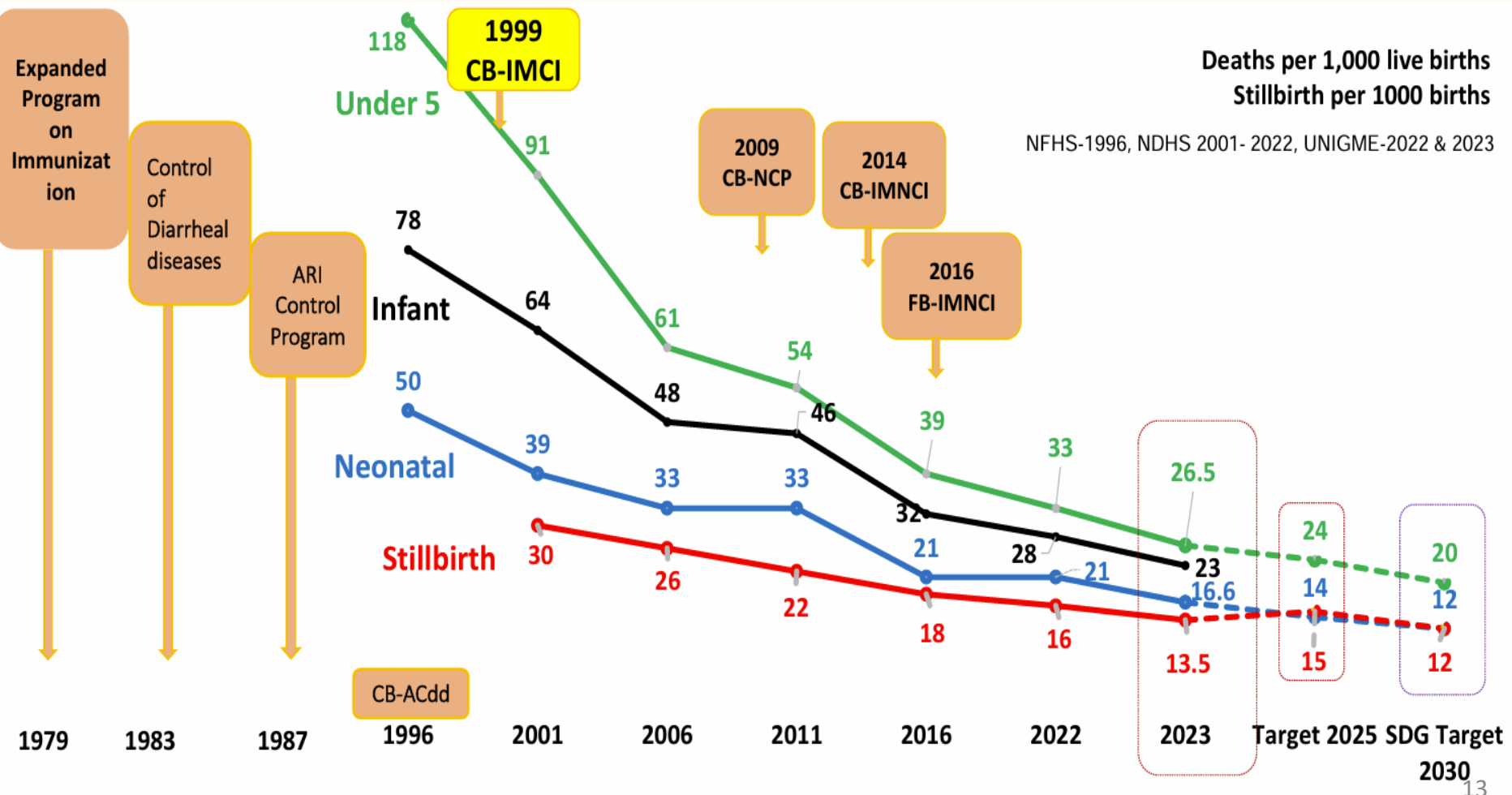
Ref : YEAR AND CHILD MORTALITY IN NEPAL (Nepal DEMOGRAPHY and health survey 2022)



CHILD MORTALITY RATE

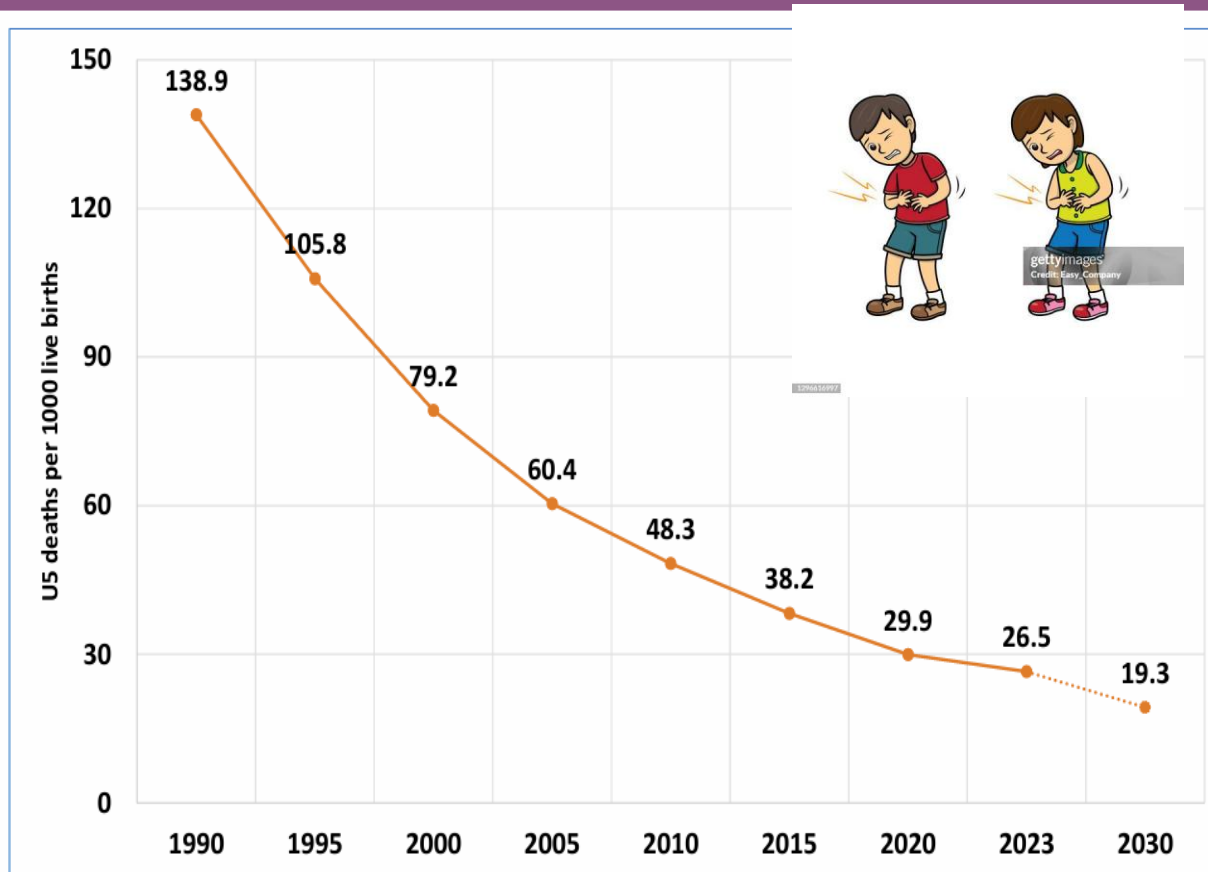
Ref : YEAR AND CHILD MORTALITY IN NEPAL (Nepal DEMOGRAPHY and health survey 2022)

Trends of Mortality Rates



Ref : YEAR AND CHILD MORTALITY IN NEPAL (Nepal DEMOGRAPHY and health survey 2022)

Under 5 mortality rate - Nepal



Overall change in U5MR between 1990 and 2023 81%

Overall change in Under 5 deaths between 2000 and 2023 75%

Yet nearly 15 282 Under 5 deaths per year, 2023

Approximate two Under 5 deaths per hour and 1256 Under 5 deaths per month

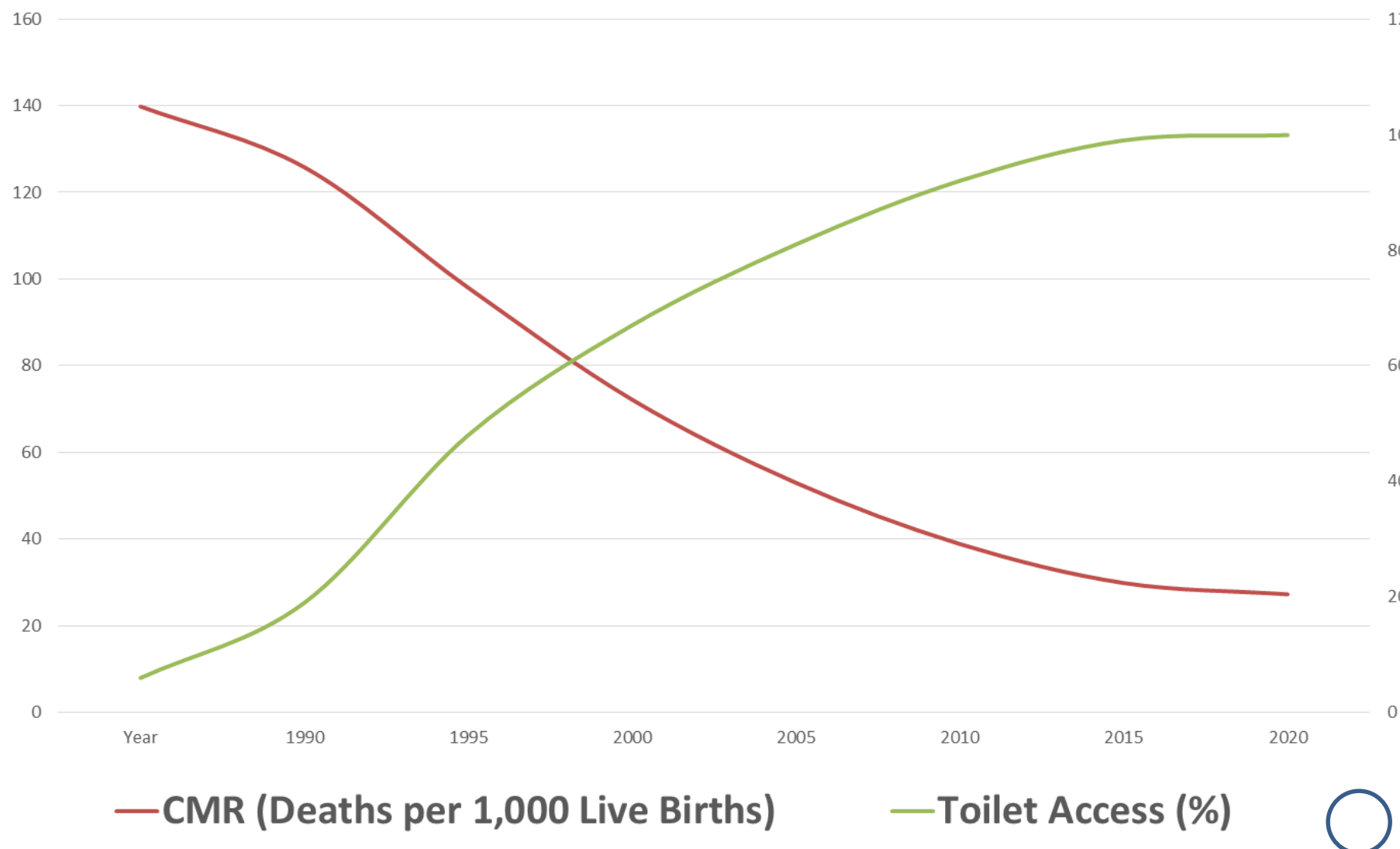
Target for 2030: 20/1000 live births

The U5MR 2030 projection have been made using the average annual rate of reduction (4.4) between 2016–2023 and applied to 2024–2030

Source: United Nations Inter-agency Group for Child Mortality Estimation

Ref : YEAR AND CHILD MORTALITY IN NEPAL (Nepal DEMOGRAPHY and health survey 2022)

Toilet Access vs. Child Mortality in Nepal



***Impact no : 3* , PUBLIC INVESTMENT AS one Fiscal Year Budget of Nepal**

- ❖ Total Households in **Nepal** (2019): 5,682,742
- ❖ Cost per Toilet (DWSSM Norms): NPR 13,133
- ❖ Total Public Investment :NPR: 74.64 billion USD: \approx 574.18 million (at 1 USD \approx NPR 130)
- ❖ Significance: This is equivalent to one fiscal year budget of the Government of Nepal
- ❖ Toilet Cost in India: NPR 15,000–17,000
- ❖ Investment Data for **India**: Not available (No capacity to calculate as per DM of India)
- ❖ Comparable to national pride projects like: Melamchi WSP, Bheri– Babai Sunkoshi–Marin

Impact No : 4 , Symbol of Hygiene

❖ Symbol of hygiene i.e Ganga Arati Janakpur , Maha Mahashiv Arati, Jaleshwor



Impact of Basic sanitation cont....

- ❖ **Impact No : 5 :** In 1990 Average life expectancy WAS 54 yrs. Now Increase age at 2022 AD , 70.5 Years (68.6 to 72.4 years)
- ❖ **Impact No : 6 :** DEFECATION FREE ROAD , RURAL & URBAN AREA or ZERO OPEN DEFECATION (Nepal like Sewarge)
- ❖ **Impact No: 7 :** DARK DISTRICT of TERAJ CONVER T TO ZERO OPEN DEFECATION
- ❖ **Impact No : 8:** Improvement of Water quality .
- ❖ **Impact No : 9:** Improve the dignity , Pride of people i. e Girl, female

Impact of Basic sanitation cont....

- ❖ *Impact No : 10* : Reduce the drop out rate of student in school i.e. Girls at the time of mensuration period
- ❖ *Impact No : 11* : Improve economy i.e. saving the time .
- ❖ *Impact No : 12*: Pride in the south Asia reason.
- ❖ *Impact No : 13*: All the stakeholders in the same platform
- ❖ *Impact No : 14* : people are safe from the forest animal , snake etc.
- ❖ *Impact No : 15* : People live in Clean & Healthy environment

WAY FORWARD

❖ WAY FORWARD

❖ SAFELY MANAGE SANITATION

City-wide Inclusive Basic Sanitation

(CWIS) Services (MOWS, DWSSM BMGF: Dr
Roshan Raj Shrestha , UN Habitat

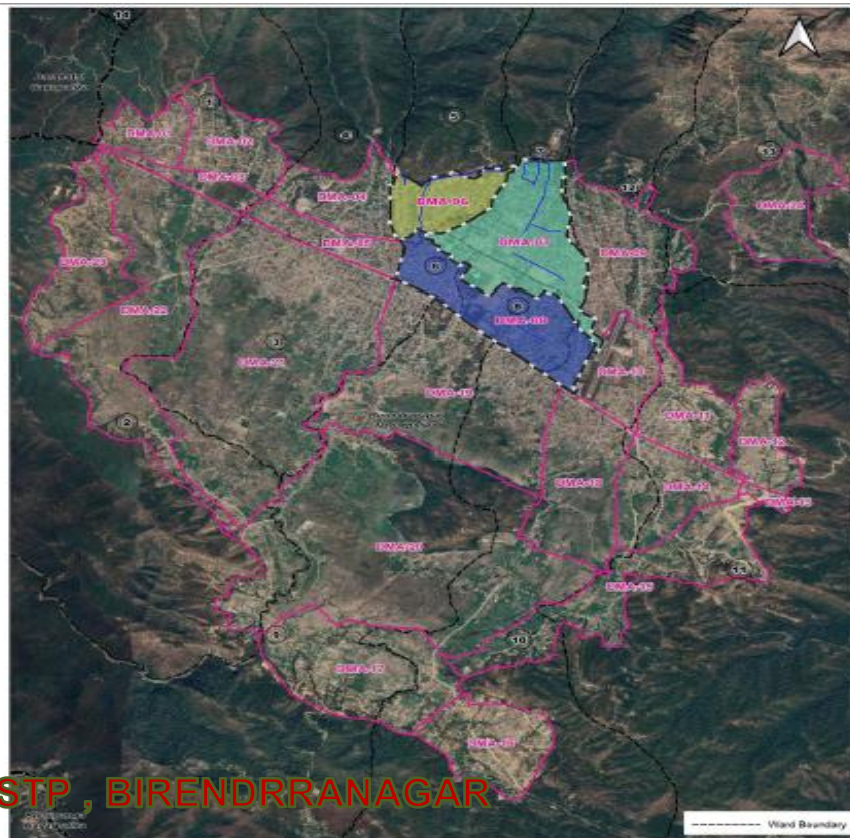
Way Forward

- ❖ City wide inclusive sanitation (CWIS) or FECAL sludge management (FSM)
- ❖ Circular economy – RRR – Resource , Reduce & Reus(phohor lai Mohar)as *Surkhet FSTP , Mankamna orange farming , IC 15 for one unit waste water at Gujarat , India*
- ❖ Sustainable or sustainability of Basic sanitation
- ❖ Research & Development (R& D) as the distance between *shallow tube well & Septic Tank*
- ❖ Climate Resilient Infrastructure & sanitation Safety Plan (*CR-SSP*)
- ❖ Development of Independent *Surveillance Mechanism as health sector in Nepal*

Way Forward contd.....

- ❖ Strong Regulatory Body with monitoring **Inspector** alley (Hospital I & Industry at Kathmandu valley
- ❖ Development of Independent **Surveillance Mechanism** as
- ❖ Innovation in sanitation for the marginalized group or **GEDSI**
- ❖ Advancing **Waste water treatment and sustainable sanitation for all**
- ❖ Others

Study Area : Safely managed sanitation (CWIS) Birendranagar Municipality, Surkhet



FSTP, BIRENDRANAGAR

Service Area of SVWUO

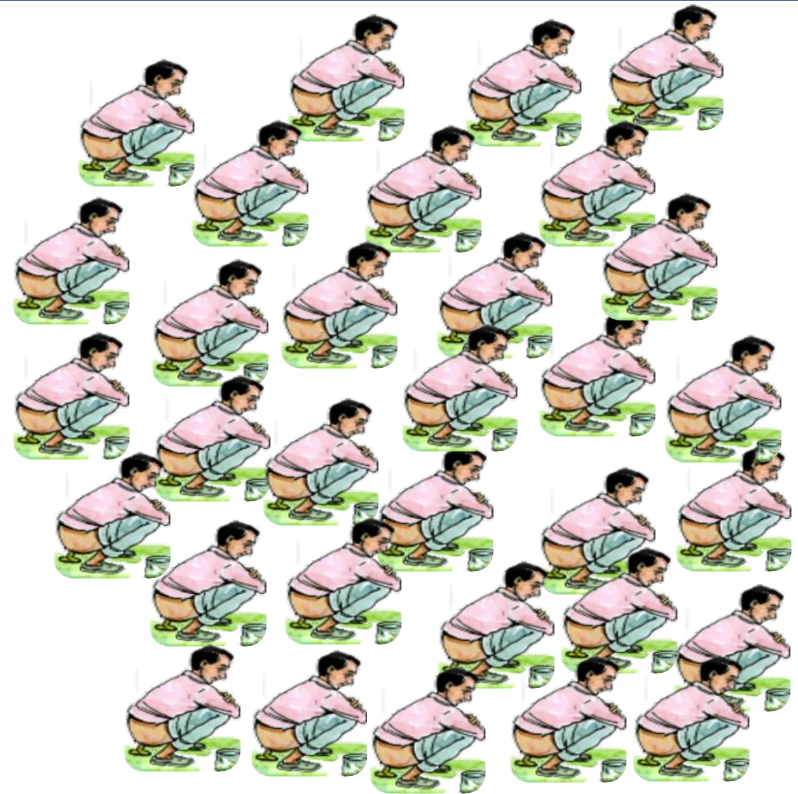


IMPORTANCE OF CWIS



**Unsafe disposal of
5m³ of FS**

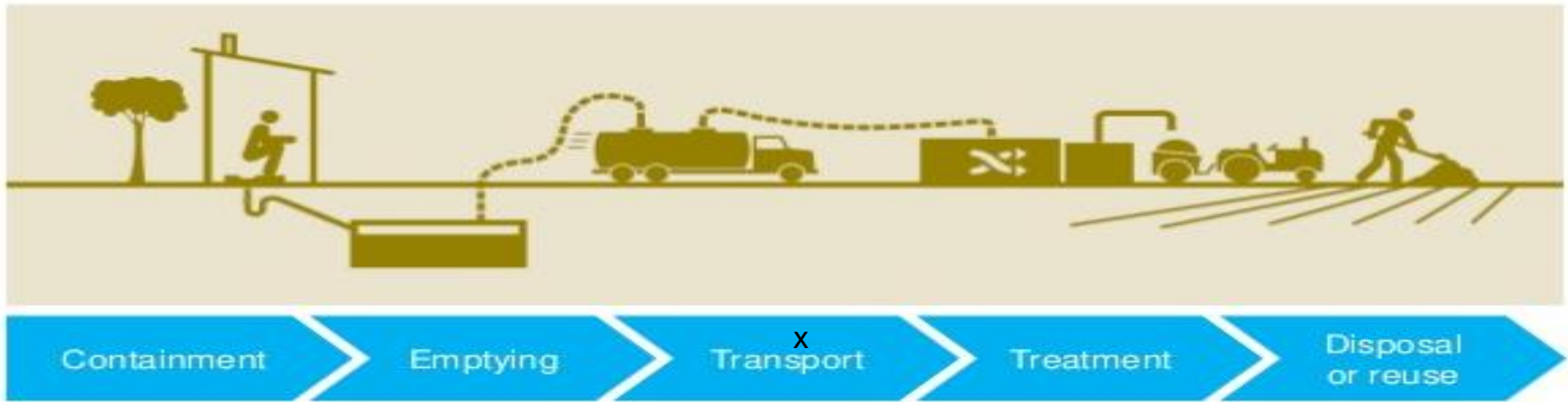
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**5000 people defecating
openly**

(Source : Eawag, Swiss)

FECAL SLUDGE MANAGEMENT (FSM) ; Sanitation Value Chain



FECAL SLUDGE MANAGEMENT Circular economy of ADB & ,RRR –PRINCIPLE

FSM

R – Resource as Toilet sludge

R – Recovery : Treatment

R – Re-use : Compost fertilizer , Bio-gas , Energy



What are ideas/innovations for “Sanitation 4.0”?

Provided that innovations should be useable for people in developing countries



Toilet

- Low-flush?
- Dry?
- Anti-germ?
- Odor free?

Containment

- Solid separation?
- Digester?
- Odor free?
- Composting?

Truck

- Small size & light weight?
- High pressure?
- Satellite unit?
- Processing?

Treatment

- Low-cost?
- Value of byproducts?
- Germ free?

CWIS ALLIANCE NEPAL (CWISAN)

- ❖ Established : Dec, 2021
- ❖ Chair : Ministry of water Supply (MOWS)
- ❖ Secretariat : Un- Habitat , Nepal
- ❖ Members : 22 (NGOs, INGOs, UN -agency, private company, Individual professional)

Purpose :

- ❖ To promote safely managed sanitation service by CWIS approach
- ❖ Capacity building
- ❖ UN habitat : NWSSTC , MuAN - support, NWASH data system strengthen
- ❖ Unicef ,SNV , Water -Aid ENPHO : CWIS , construction of FSTP , capacity building by Bill and Melinda gates Foundation

FECAL SLUDGE MANGEMENT TREATMENT PLANT (FSTP)

sNO	Name of FSTP	Design capacity Cubic	fuctional status	remaks
1	Kakarbhitta	12 Cum / day	Functional	
2	Charali	27 Cum / day	Functional	
3	Biratnagar (WWTP with FST)	18.5 MLD	Partial Functional	
4	Khadak	NA	Functional	
5	Shreekhandapur	ww : 50 CUM/DAY FS : 3 Cum/day	Partial Functional	
6	Lubhu	6 cum/ week	Functional	

FECAL SLUDGE MANGEMENT TREATMENT PLANT (FSTP)

sNO	Name of FSTP	Design capacity Cubic	fuctional status	remaks
7	Ratnanagar (WWTP with FST)	5 MLD	Non Functional	
8	Mukundpur	NA	Non Functional	
9	Byas	NA	Non Functional	
10	Pokhara FSTP	115 Cum/ day	Non Functional	
11	Waling FSTP	6 Cum/ day	Functional	
12	Butwal FSTP	40 Cum/ day	Partial Functional	

FECAL SLUDGE MANGEMENT TREATMENT PLANT (FSTP)

SNO	Name of FSTP	Design capacity Cubic	Fuctional status	remaks
13	Nepalgunj	NA	Functional	
14	Gulariya	3 cum/ day	Functional	
15	Birendranagar	16 cum/ day	Functional	
16	Madhuban	3 cum/ day	Non- functional	
17	Tikapur	9 cum/ day	Functional	

GUHESHWORI WWTP (CAPACITY ; 32.4 MLD : MOWS



Tikapur FECAL Sludge Treatment Plant (9 cum per day)



LUBHU FSTP (Enpho, BMGF)(6 cum/ week)



Kakarbhitha FSTP (Capacity : 12 Cum / day)



CHARALI FSTP :27 Cum/ Day



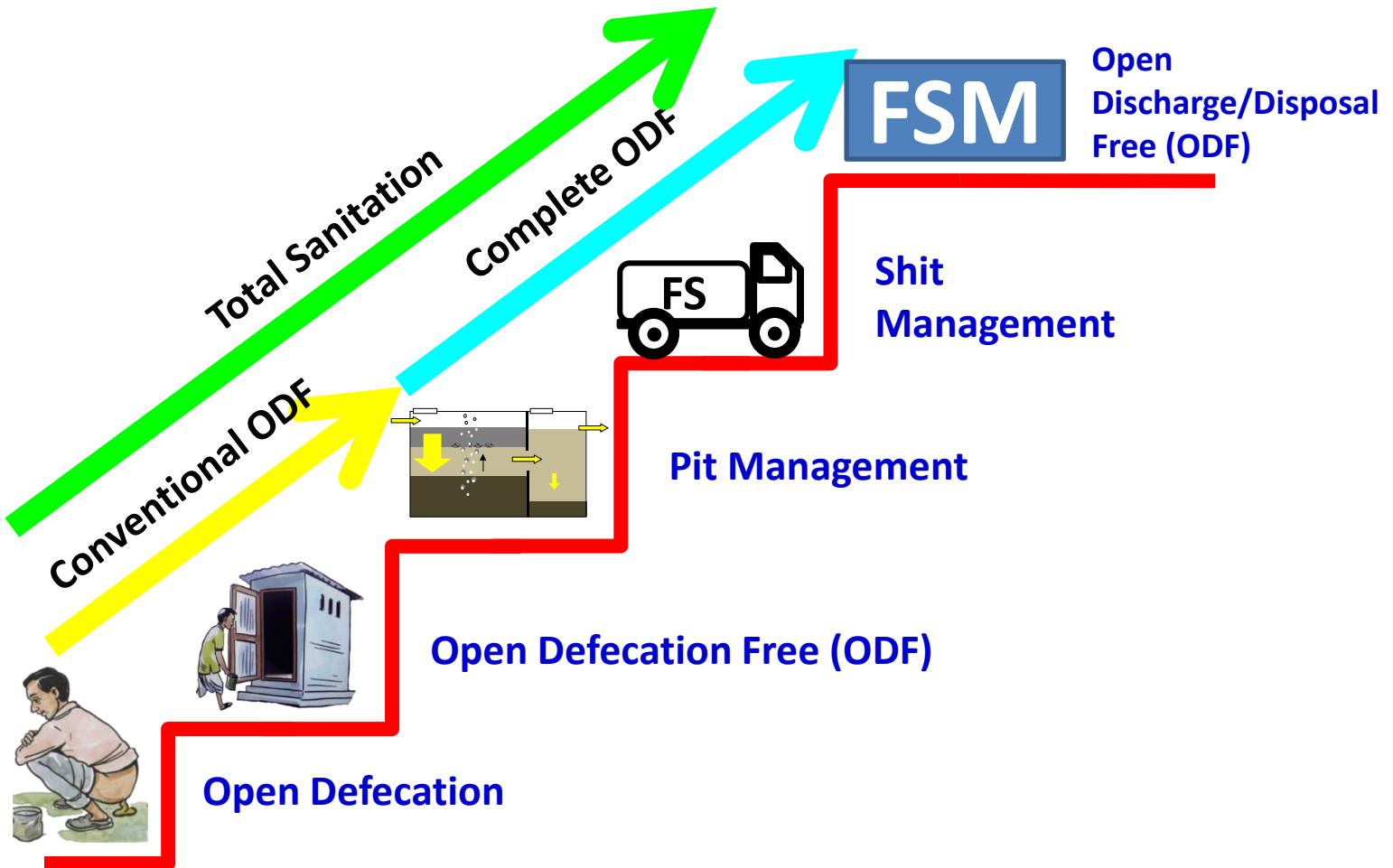
Birendranagar FSTP (capacity 16 cum/ day)



OMINI Process FSTP at China (BY: Bill and Melinda Gates foundation(BMGF))



FSM for Total Sanitation



Disposal of FECAL Sludge : River , Pond, Jungle

Into the
water bodies



And then.....

Open spaces



Into the
manholes



CWIS Service framework Vs NEA role

CWIS SERVICE FRAMEWORK

	 EQUITY	 SAFETY	 SUSTAINABILITY
CORE CWIS OUTCOMES	Services reflect fairness in distribution and prioritization of service quality, prices, and deployment of public finance/subsidies.	Services safeguard customers, workers, and communities from safety and health risks—reaching <i>everyone</i> with safe sanitation.	Services are reliably and continually delivered based on effective management of human, financial and natural resources.
CORE CWIS FUNCTIONS	RESPONSIBILITY An authority(ies) executes a clear public mandate to ensure safe, equitable, and sustainable sanitation for all.	ACCOUNTABILITY Authorities' performance against their mandate is monitored and managed with data, transparency and incentives.	RESOURCE PLANNING AND MANAGEMENT Resources—human, financial, natural, assets—are effectively managed to support execution of mandate across time/space.



KEY ACT, POLICIES OF GOVERNMENT OF NEPAL (MINISTRY OF WATER SUPPLY)

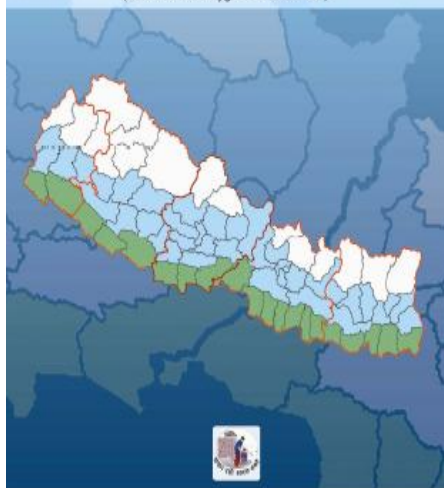
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नेपाल सरकार

सरसफाइ गुरु योजना

(Sanitation and Hygiene Master Plan)



2

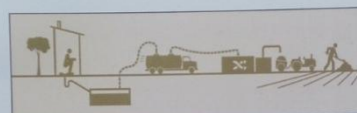
पूर्ण सरसफाइ मार्गदर्शन-२०७३



नेपाल सरकार
खानेपानी तथा सरसफाइ मन्त्रालय
सिंहदरबार, काठमाडौं

3

नेपालका सहरहरूमा मानव मलमूत्रीय फोहोर
व्यवस्थापनका लागि संस्थागत तथा नियामक साका



नेपाल सरकार
खानेपानी तथा सरसफाइ मन्त्रालय
काठमाडौं, नेपाल
वैशाख २०७४

4

नेपाल सरकार
कानून, न्याय तथा संसदीय मामिला मन्त्रालय

नेपालको संविधान बमोजिम सङ्घीय संसदले बनाएको तल लेखिए
बमोजिमको ऐन सर्वसाधारणको जानकारीको लागि प्रकाशन गरिएको
छ।

संवत् २०७९ सालको ऐन नं. १९

खानेपानी तथा सरसफाइ सम्बन्धमा व्यवस्था गर्न बनेको ऐन

प्रस्तावना: स्वच्छ तथा गुणस्तरीय खानेपानी तथा सरसफाइ सेवा प्राप्त
गर्ने नागरिकको मौलिक अधिकारको सम्मान, संरक्षण र परिपूर्ति गरी
स्वच्छ तथा गुणस्तरीय खानेपानी र सरसफाइ सेवा सहज रूपमा
उपलब्ध गराउन र ढल निकास र फोहोरपानीको व्यवस्थापन गर्ने
सम्बन्धमा आवश्यक व्यवस्था गर्न वाञ्छनीय भएकोले,

सङ्घीय संसदले यो ऐन बनाएको छ।

परिच्छेद-१

प्रारम्भिक

१. संक्षिप्त नाम र प्रारम्भ: (१) यस ऐनको नाम "खानेपानी
तथा सरसफाइ ऐन, २०७९" रहेको छ।

(२) यो ऐन प्रमाणीकरण भएको एकतीसौं दिनदेखि

1. Sanitation and Hygiene Master Plan 2011
2. Total Sanitation Guidelines 2017
3. Institutional and Regulatory Framework for FSM 2018
4. WASH – Sector ACT : 2022



STAGE-II: Total Sanitation Oriented Zone



Stage - I: Clean and Hygiene Zone



Media coverage

नयाँ पत्रिका मंगलबार १४ असार ०७६ www.nayapatrikadaily.com

राष्ट्रिय ३

नेपाल दक्षिण एसियाकै पहिलो खुला दिसामुक्त देश घोषणा

नेपाल एक कदम अघि बढयो : प्रधानमन्त्री

नेपाललाई खुला दिसामुक्त राष्ट्र घोषणा गरेका प्रधानमन्त्री केपी ओली देश एक कदम अघि बढेको बताए। उनले खुला दिसामुक्त घोषणाले मुलुकलाई सम्पन्नका लागिने एक मिडि भन्ने उताको भनाइ गरे। प्रधानमन्त्रीले मंगलबार नेपाल र सूची नेपाली को राष्ट्रिय संकेत पुराने नेपाल होक दिन एक कदम अगाडिको अग्रिमवा भएको बताए। खुला दिसामुक्त घोषणाले खास मूल्यद कम हुने र सरदर आरू वृद्ध हुने उनको भनाइ थियो। हामी सबैले सबै क्षेत्रको विकास गर्न प्रयास गर्नुपर्छ। यो घोषणाले नेपाल एक कदम अघि बढेको छ, प्रधानमन्त्री ओलीले भने।

तारिख : रासस

नयाँ पत्रिका काठमाडौं, १३ असार

नेपाल दक्षिण एसियाकै पहिलो खुला दिसामुक्त देश घोषणा भएको छ। काठमाडौंमा सोमबार विशेष कार्यक्रमको आयोजना गरेर नेपाललाई खुला दिसामुक्त घोषणा गरिएको हो। विभिन्न देश भारतले समेत दुई दिनपछि खुला दिसामुक्त देश घोषणा गर्दै छ।

७१३ स्थानीय तह र ७७ जिल्ला खुला दिसामुक्त भएपछि सोमबार देशलाई नै खुला दिसामुक्त घोषणा गरिएको हो। ०६८ सालमा तत्कालीन राष्ट्रपति डा. रामबरण यादवले सरसकट मुलोजना प्रमाणित गरेपछि खुला दिसामुक्त घोषणाको अग्रिमवा सञ्चालन गरिएको थियो। सोही मुलोजनाअनुसार देशभरका वडा, स्थानीय तह, जिल्ला हुँदै नेपाललाई नै खुला दिसामुक्त घोषणा गरिएको हो।

अन्तर्राष्ट्रिय सरसकट बर्षका अवसरमा ५ जून २००८ मा तत्कालीन संविधानसभाका ६०१ जना सभ्यद्वारेण काठमाडौंको खुलामञ्चमा साभामा शव्दका साथ नेपाललाई खुला दिसामुक्त राष्ट्र बनाउदै पूर्ण सरसकटको लक्ष्य

हासिल गर्ने प्रतिबद्धता जनाएका थिए। १० असार ०६८ मा तत्कालीन प्रधानमन्त्री भवनाथ खमालाले काभ्रेकोलाई खुला दिसामुक्त जिल्ला घोषणा गरेका थिए। काभ्रेको नै नेपालको पहिलो खुला दिसामुक्त जिल्ला हो। ४ असार ०७६ मा भोजपुर खुला दिसामुक्त हुने सबैभन्दा पहिलो जिल्ला हो।

■ कति बने शौचालय ?
खाजिनगी मन्जलालयको लक्ष्यकअनुसार देशभर ५६ लाख ६० हजार २१४ घरधुरीमा शौचालय कोका छन्। जसमध्ये प्रदेश नम्बर १ मा १ लाख ६५ हजार २७२ वटा शौचालय बनेका छन्। प्रदेश २ मा १ लाख ३३ हजार १६ सय २९, प्रदेश ३ मा १६ लाख २२ हजार १९३ शौचालय बनेको मन्जालयले जनाएको छ। यस्तै, गण्डकी प्रदेशमा ५ लाख ४८ हजार २१०, प्रदेश ५ मा १३ लाख ९३ हजार ९९०, कोशी प्रदेशमा ४ लाख २९ हजार १२ शौचालय कोको मन्जालयको तथ्यांकमा छ। यसका साथै सरकाका दिसामुक्त तथ्यांकमा क्षेत्र, गैरसरकारी क्षेत्र र विकास समन्वयन क्षेत्रका शौचालय निर्माण पकल र संयुक्त पहलमा प्रदेशका प्रमुख स्थान, जिल्ला सदरमुकाम र राजमार्गका साविकको शौचालय निर्माण भरहेको मन्जालयले जनाएको छ।

भारतले बुधवार खुला दिसामुक्त देश घोषणा गर्दै

भरहेको मन्जालयले जनाएको छ।

जोषवापत्र - २०६६ असार - १०, सुकाल

देशलाई खुला दिसामुक्त घोषणा गरिदै

■ कति बने

काठमाडौं असार १ गते। निर्वाचन समन्वयमण्डल दुई वर्षपछि देउतावै खुला दिसामुक्त घोषणा गरिँदै। राष्ट्रियतस्त घरधुरीमा शौचालय बन्दाइकोसो यो असार १३ गते नेपाललाई खुल दिसामुक्त मुलुक घोषणा गरिने भएको हो।

नेपाल सरसकटको सरसकट मुलुकेक, २०६८ ले नेपाललाई सम २०१७ मा खुला दिसामुक्त घोषणा गर्ने राष्ट्रिय लक्ष्य तय गरेको थियो। यसबर्षका मुकाम, खुला सरसकटका कारण शौचालय बन्दाइ काममा बाध आइयो। मन् २०१९ मा लक्ष्य पूरा गर्ने मिति न्यारिको थियो।

असार १३ गते खुला दिसामुक्त मुलुक घोषणा गर्ने नेपालको पूर्ण सरसकटाइसम्बन्धी पहिलो र महत्वपूर्ण राष्ट्रिय लक्ष्य र अन्तर्राष्ट्रिय शौचालयसम्म पुगु हुँदैछ। यसको साथ साथ ७७औं जिल्लाका रूपम माभन्दाखुला दिसामुक्त घोषणा गरियो। कोशीलेनेत खुला दिसामुक्त मुलुक भएको छ। यसको घोषणा असार १३ गते हुँदैछ।

सातपानी मन्जालय खुला दिसामुक्त मुलुक घोषणाको तयारीमा लागेको छ। प्रत्येक घरधुरीलाई चर्को पूरु गर्नुपर्ने खुला दिसामुक्त अवसरमासम्बन्धे मानक पूरा गरेपछि खुला दिसामुक्त घोषणा गर्ने लागेको हो। राष्ट्रिय सरसकट तय भएको भन्नुभयो, देशका तयारीत घरधुरीमा शौचालय बन्दाइकोसो खुला दिसामुक्त घोषणा गर्ने सन्मन्जालयका मन्जालयका

खुला दिसामुक्त नेपाल

देशभर ५६ लाख ६० हजार २१४ घरधुरीमा शौचालय

शौचालय बनाउन भरिँदै ७५ वर्षे राष्ट्रिय न्यायिकको लगानी

सात लाख २१ हजार १२ घरधुरीमा शौचालय बनेका छन्। यो शौचालय बनेका घरधुरीमा तयारीत तयारीत गरिने भएको छ। सरसकटको सरसकट समयावधिमा तयारीत बन्दाइ ७५ वर्षे राष्ट्रिय न्यायिकको पूरा लाग्ने गरेको छ। उहाँ भन्नुभयो, 'सम्बन्धे अन्तर्गतमा मन्जालय अन्तर्गत न्यायिकको अन्तर्गत भागको बाबुकोसो तयारीत हुने तयारीत गर्ने चर्द निकालेको छ। खुला दिसामुक्त अवसरमा आशुपुन सबैभन्दा बढी तयारीत न्यायिकको संरचना गर्ने तयारीतको तयारीत सन्तुष्ट गर्ने सरसकट तथा समाजवादीक कर्म अर्थको बन्दाइनुहुन।

अब पूर्ण सरसकटाइतिर

राष्ट्रिय आकारणम ने हाम्या खुलामुक्त खुला दिसामुक्त घोषणा गरिएको भन्ने कोषणाको विचार पनि राखेका छन्। कतिपय घरमा शौचालय नभएको, भएका पनि प्रयोग नगरिएको, तयारीतको शौचालयको अपयोजनागत विषयका कारण खुला दिसामुक्त घोषणाको औचित्यपूर्ण बन्नु उठ्ने गरेको छ।

उताका अनुकूल ताल देउप ६६ लाख ६० हजार २१४ घरधुरीमा शौचालय बनेका छन्। प्रदेश १ मा नै लाख ६५ हजार २७२ र प्रदेश २ मा नै लाख ३३ हजार १६९ घरधुरीमा शौचालय बनेका छन्। प्रदेशमा ३ मा १६ लाख २२ हजार १९३, गण्डकी प्रदेशमा संघ ताल १० हजार २१०, प्रदेश १ मा ताल लाख १३ हजार ९९०, कोशी प्रदेशमा तीन लाख सात हजार १९३ र सुदूरपश्चिम प्रदेशमा

कति बने शौचालय ?
२०६८ सालमा सरसकट मुलुकेक बनेपछि खुला दिसामुक्त अग्रिमवा मुक भएको हो। यो अग्रिमवाति मुलुकेक अनुदानमा घरधरमा चर्द बनाउने कामलाई कार्यान्वयन गर्यो। न्यायिकको शौचालय र सरसकटाइ सफल भएको नेपाल पूरा लाग्ने र सरसकटाइ कार्यान्वयन बनेको सरसकटको लक्ष्य उठाउनै न्यायिक कार्यान्वयन बनेको सन्मन्जालयका मन्जालयका

PUBLIC TOILET



SWAYAMBHU



JALESHWOR



Successes of the Ganga Cleaning Project

❖ **Improved Water Quality:**

Most stretches of the Ganga now meet bathing standards, except two in Uttar Pradesh. No major fish deaths have been reported since 2017.

❖ **Biodiversity Conservation:**

The Gangetic dolphin population has increased from ~3,330 to ~3,936. Projects like releasing 75,000 fish eggs aim to further restore aquatic life.

❖ **Sewage Infrastructure Development:**

152 sewage treatment plants (STPs) completed; 86% of the sewage network laid, improving pollution control.

❖ **Global Recognition:**

UN listed *Namami Gange* among the **Top 10 World Restoration Flagship Initiatives**.

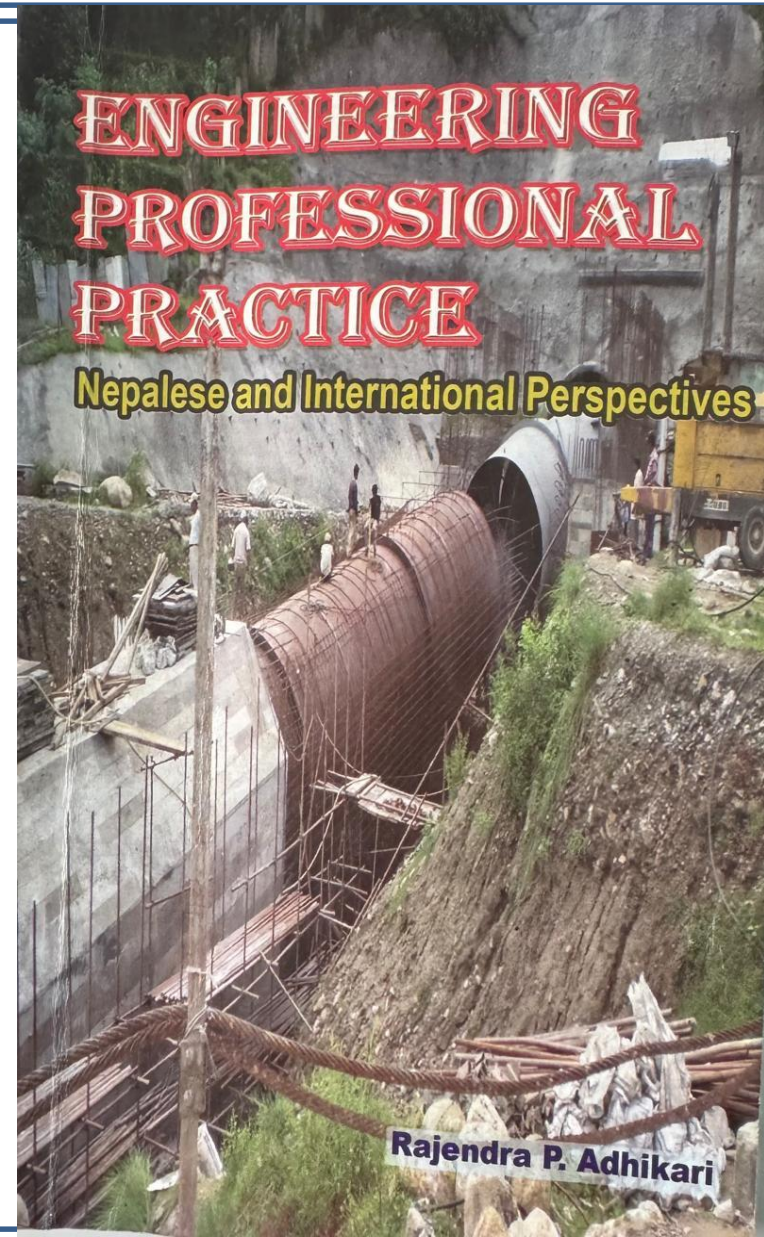
International Water Association honored it as a “Climate Smart Utility” in 2024.

❖ **Socio-Economic Benefits:**

Over **1 million jobs** created; **30% tourism growth** in Varanasi due to cleaner ghats and riverfront redevelopment.

ENGINEERING Professionalism vs. Society

- ❖ In the words of Surya Nath Upadhyaya (Chief Commissioner for Investigation of Abuse of Authority (CIAA) *engineers have been commanding high respect in society . He further says “ Society Pays respect to those who are givers rather than takers engineers as magical givers & PROBLEM SOLVERS , also warms the professional engineer in fulfill their duties towards the society .*
- ❖ *If you give 1 , than society returns 99 (Ref : Myself experience)*
(Ref : EPP , Nepalese and International Practice ,: **Profession And Ethics 9(page no 37)**)
Rajendra Prasad Adhikari ,(PH. D))



ODF DECLARATION EVENT



Chitapokhari, Khotang
2071/10/22



Khidima, Khotang
2070/01/15

Engineer Vs Society



Engineer Vs Society



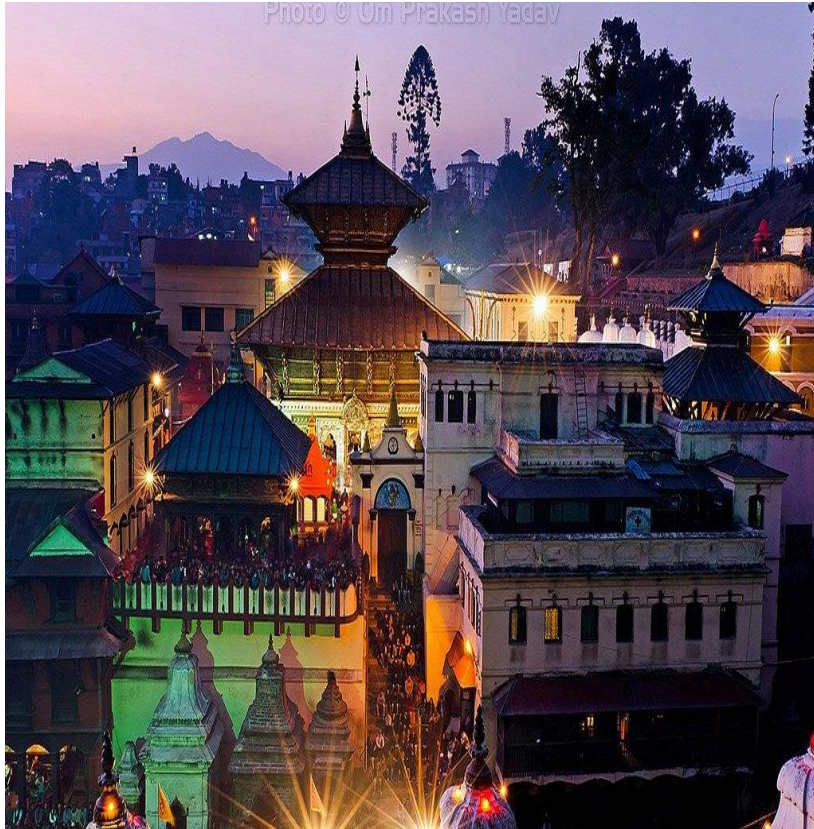
Chitapokhari , Khotang
2071/10/22



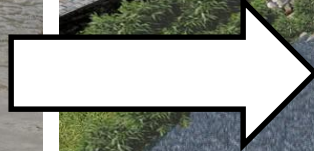
Suntale , Khotang,
2071/11/29

PASHUPATI NATH Sandhaya Arati

Photo © Um Prakash Yadav



Bagmati River Cleaning Campaign vs NEA



- ❖ **2013 may 19, 12 years -626 week** The above my findings model may be used in River Health Holy Bagmati river including Pond , Tal for the worship of God shiva Pashupatinath at Kathmandu ally (Stacholder Mapping & Capacity Building) , **Coordination committee – ktm , Lalitpur, Bhaktapur, Budanilkanth, Madhyapur, Surya Binayak , Tokkha, Kirtipur, Chandragiri, Sec : BRBIP, Technical assistance : NEA**
- ❖ Climate – Resilient Infrastructure implemented by Government of Nepal (GON) eg , : Melanchi , Bridge etc

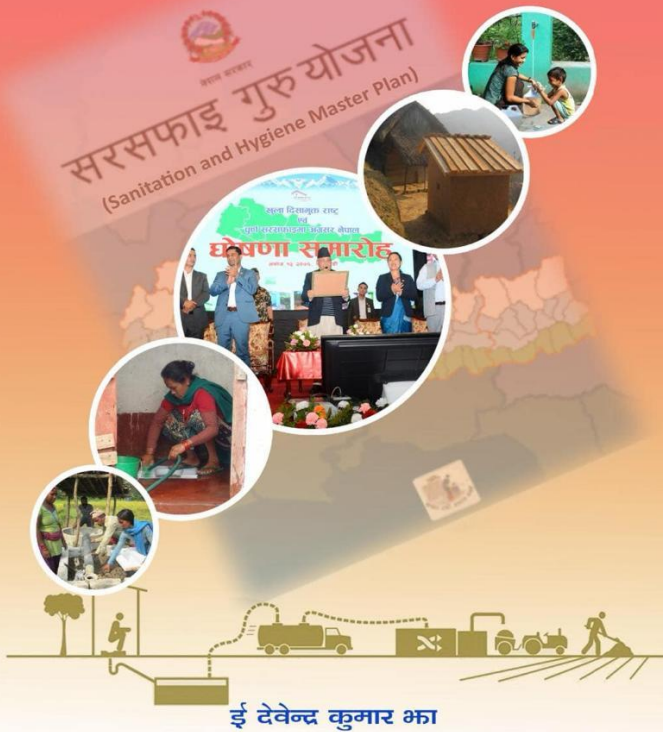
Clean Waters, Green City..... where people live, work and play

Without **commitment** you will never start
Without **consistency** you will never finish



My Book

नेपालको सरसफाइ अभियान सफलताको सूत्र र भावी सोच




Martyr Er. Nava Raj Bista National Awards **NEPAL ENGINEER'S ASSOCIATION (NEA) 55th Engineer's Day Celebration**



सफलताको रहस्य

If an egg is broken by an outside force, life ends.

A large, light-colored egg is shown against a dark background. A bright, jagged crack runs across the top of the egg, and a beam of light shines through it from the right. The egg is the central focus of the image.

If an egg is broken by an inside force, then life begins.

Great things happen from the inside.

THANK YOU

