

Water, Sanitation and Hygiene (WASH)

## **Nepal-Sector Status Report 2011**

Final Draft



**Ministry of Physical Planning and Work  
(MPPW)**

**May 2011**

# Forward

May 2011

To be included after JSR conference.

# WASH-Sector Status Report 2011

## Executive Summary

May 2011

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### Introduction and scope

1. This is the first Water, Sanitation and Hygiene (WASH) Sector Status Report (SSR). It draws attention to the operational and sector performance including value-for-money considerations and tracks financial projection and expenditure.
2. The Sector Efficiency Improvement Unit (SEIU) of the Water and Sanitation Division of the MPPW has put significant effort into improving the joint dialogue process as this is the first attempt to provide a status update.
3. Although urban issues are briefly discussed, the main focus of the review is in rural services. This is warranted because a separate study is currently being undertaken by SEIU to address emerging urban issues.

### Sector overview

#### *Services*

4. This report estimates that the existing coverage of water and sanitation services in Nepal is approximately 80% and 43% respectively. Currently, about 5.5 million people do not have access to adequate water services and 16 million lack adequate sanitation facilities. The national target is for universal access to water and sanitation by 2017. The current Three Year Plan (2011-2013) targets include:
  5. • Access to basic water supply service: 85%
  6. • Sanitation: 60%
7. The coverage varies significantly by development and ecological regions, by urban/rural divides and by ethnicity. Coverage figures alone can give a false impression as they do not adequately represent service levels related to quality, accessibility, quantity, reliability and sustainability.

#### *Impacts*

8. Strong correlations between WASH coverage, occurrence of diarrheal diseases and infant mortality rates have been observed. Diarrhoea is largely a water borne disease and is the third most primary cause of death of under five children. In 2006, 12% of children under five suffered from diarrhoea in the first two weeks..
9. The increasing urbanisation trend creates pressure on urban sanitation and environmental management. There are concerns that climate change impact creates additional challenges to the WASH sector.

#### *Finance*

10. The current trend of annual water and sanitation investments is of the order of NRs 4,000 million. Allowing for anticipated population growth, to meet the aspirational goal of universal coverage by 2017, about NRs 7,500 million per year is required. This is in addition to commitments on the Melamchi project and institutional reforms.

#### *Sector Characterisation*

11. To have better water and sanitation sector performance, the sector needs functional, coordinated, harmonized, information based planning and monitoring systems. In overview, the sector is commonly characterized by:
  - Institutional fragmentation and limited sector coordination

- Financing and financial resource constraints
  - Inadequate capacity in local authorities
  - Limited updated sector assessments and weak monitoring systems
  - Inadequate attention to water resource management and water quality
  - Socially-excluded communities lack consumer voice
  - Incoherent integration of national water and sanitation policies
  - Demand and supply-side weaknesses and inequitable targeting and distribution of resources
  - A large growth of non-state actors, supported by diverse off-budget funding streams.
  - Low overall sector sustainability. Key factors that limit sustainability are reliance on capital hand-outs from government and donors, institutional weaknesses, lack of attention to environmental impacts, weak operation and maintenance
12. There have already been some recent notable movements to improve performance. The GoN has clearly stated its intention to move to a Sector Wide Approach in the Water and Sanitation Sector, and a Sector Efficiency Improvement Unit (SEIU) was established by MoPPW as a secretariat to the Sector Stakeholder Group (SSG), which coordinates the activities of the main sector agencies.

#### **Headline Issues:**

13. While there are some excellent national strategies and policy framework which are generally accepted by most stakeholders, many elements of the policies have not been implemented and there are large gaps between policy provision and compliance.
14. Key handovers of responsibilities and co-ordination efforts have not been implemented or have been seriously delayed. The dearth of data and lack of an agreed framework for measuring progress has allowed slippages to occur. There seems to be a lack of will and leadership to put in place the very many good ideas in the GoN's own policies.
15. Current real per capita budget allocation is about Rs, 1,700. In order to provide the basic water and sanitation services and meet the national goal by the year 2017, a per capita expenditure required is about Rs. 3,500. This is equal to Rs.7.5 billion investment per annum.
16. Considering the present status of sanitation coverage (43%), there is a wide gap so as to meet the universal coverage by 2017. The conventional trend of budget allocation cannot address to fulfil it and current resource allocation is significantly low.
17. The policy provision maintains that 10% of the budget allocated to the rural water supply and sanitation should be spent for sanitation activities and 20 % for rehabilitation of existing water supply systems/schemes. In practice such provisions are neither fully abided nor allocated accordingly.

#### **Headline Recommendations**

18. **Sector Coordination** – Formalize a specific, accountable coordination structure at national and district levels. Set up a national executive management to operationalize and give leadership to the SSG. The district sector coordination body should be chaired by the LDO with a member secretary to operationalize and track achievement of actions and to communicate between levels. Support agencies should be integrated into these structures. All sector agencies should resolve to work through these coordinating structures.
19. **Institutional Arrangements** – Provide clarity on specific accountabilities including agreement on which, and when, powers are decentralized. Provide clarity on how the Fund Board activities and operations by other agencies become integrated into one

district-lead sector program.

20. **Financial Arrangements** – Reach agreement that all agencies report on sector finance to enable oversight on financial performance. Implement a mechanism to secure compliance to a common financing policy by all sector agencies. Rural tariffs should cover the cost of operations and replacement and encourage household connections Investigate and agree on a strategy to increase financial allocations and improve cost-efficiency.
21. **Functionality** -Develop and implement cost-effective and scalable post-construction support mechanism and professionalise O&M services. Prioritise rehabilitation of existing infrastructure. Incorporate functional status and service levels of existing water supply schemes in M&E system.
22. **Sanitation and Hygiene** – Increase the priority of redressing the low sanitation coverage figures. Provide a strategic focus to eliminating open defecation in Nepal and increase attention to post-construction support to ensure that basic facilities meet minimum standards. Agencies should adopt a common approach to sanitation and hygiene behavior change as indicated in sanitation master plan.
23. **Water Quality** – All agencies should begin complying to national standards in developing new and rehabilitated services with increasing efforts to implement water safety plans.
24. **Performance Monitoring** – Reach agreement on development and use of NMIP as the primary sector data source. Incorporate monitoring the functional status of systems with existing monitoring systems. Improve dissemination of monitoring reports. Agree on proposed CREAM indicators and ensure shearing mechanism in an annual basis.
25. **Sector Assessment** – The sector should embark on a detailed sector assessment to address gaps in knowledge identified in the Sector Status Report. The Sector Assessment should be conducted by internationally trusted consultants with strong local partners. The sector assessment should look closely at the Country Status Overview methodology to see if this could be incorporated into sector assessment methodology.
26. Detailed recommendations are listed in each section in the recommendations sections and are summarised below.

Category	Recommendation summary	Responsible agency/party	Timeline
<b>Policy/Strategies/Cross cutting</b>	Develop a strategy to implement policies.		
	Develop a policy benchmarking and monitoring compliance system		
	Disseminate and market policies		
	Improve GESI implementation		
	Accelerate drafting and enactment of the proposed umbrella act.		
	Commission a comprehensive study to improve service level, water quality, and urban sanitation, solid and liquid waste management and capital cost recovery.		
<b>Sector Coordination</b>	Strengthen and harmonise national and district level coordination mechanism and resource allocation in case of disaster.		
	Strengthen National Level Coordination with an executive management team		
	Strengthen District Coordination Platforms		
	Strengthen Reporting from Coordinating Bodies		
	Develop an Annual Program of Coordination meetings		
	Develop a WASH Sector Nepal Agreement		

Category	Recommendation summary	Responsible agency/party	Timeline
<b>Sector Finance</b>	Allocate funds for hygiene in a separate sanitation budget line to the all sector players to meet the set target		
	Allocate funds as per policies – e.g. for capacity building of WUSCs , rehabilitation of existing water supply schemes/projects. ODF <sup>1</sup> declaration in the water supply service areas.		
	Advocate reviewing budget allocation (Central grant and local revenue) of local bodies and negotiating certain percentage of resource allocation for water and sanitation sub-sector. Establish reporting mechanism of such contribution in the sector to avoid gap and overlap of resources		
	Utilize existing coordination platform to ensure a commonly agreed financial procedures and directives defined in the sector policies.		
	Make off budget allocation predictable and transparent		
<b>Institutional perspectives</b>	Clarify roles and responsibilities		
	Aggregate stakeholder groups		
	Benchmark local government performance		
	Establish standard contracts between village water supply and local governments		
	Explore and identify potential innovative mechanisms for outsourcing rural water supply maintenance		

<sup>1</sup> Open Defecation Free

Category	Recommendation summary	Responsible agency/party	Timeline
<b>Functionality and Performance Monitoring</b>	Establish an independent regulatory body and implement a regulatory mechanism. Clarify the separation of roles and responsibilities between different types of stakeholders		
	Develop and implement cost-effective and scalable sub-national post-construction support mechanism.		
	Aggregate stakeholder groups (not so clear )		
	Benchmark and monitor capacity and performance of stakeholders (regulator, funder, decision maker, implementer and operator)		
	Establish common minimum standards for water supply services		
	Professionalise rural water supply operation & maintenance		
<b>Sanitation and Hygiene</b>	Use Sanitation Master Plan as guiding document for evidence based joint planning and subsequent resource allocation		
	Formulate joint coherent annual plan and execute and ensure unified financing mechanisms		
	Develop and execute pre and post –ODF strategy		
	Integrate hygiene promotion as an essential and integral component of multi sector (WASH, education, health) interventions		
	Promote private sector involvement in sanitation and solid waste management		
<b>Water Quality</b>	Develop comprehensive mass media advocacy tools kits to improve knowledge of the public in both urban and rural areas on safe water	Water Quality (WQ) Steering Committee	
	Enforce and comply standard directives by all WASH agencies.		
	Provide legal guideline and directives to operate and sustain the existing water laboratories		
	Mainstream Water Safety Plans		
	Ensure Water Safety plans are implemented in all new urban projects		
	Review existing coordination platform established for water quality promotion		
	Establish a clear and workable mechanism to collect and analyse water quality data		
	In arsenic prone areas: compulsorily carry out feasibility study (financial/technical) for installation of permanent water treatment (WT) facilities		
	During the rainy season and disease outbreaks, promote Point of Use (PoU) water treatment		

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## Abbreviations

ADB	Asian Development Bank
CBO	Community Based Organization
CBWSSP	Community Based Water Supply and Sanitation Project
CDR	Central Development Region
CREAM	Clear Reliable Adequate Measurable
DDC	District Development Committee
DoLIDAR	Department of Local Infrastructure Development and Agriculture Roads
DP	Development Partner
DPPs	District Development Plans
DTO	District Technical Office
DUDBC	Department of Urban Development and Building Construction
DWSS	Department of Water Supply and Sewerage
DWSSCC	District Water Supply and Sanitation Coordination Committee
EDR	Eastern Development Region
FWDR	Far Western Development Region
GO	Government Organization
GSF	Global Sanitation Fund
HRD	human resource development
I/NGO	International/Non-Governmental Organization
IF&CB	Institutional Framework and Capacity Building
JSR	Joint Sector Review
KUKL	Kathmandu Upatyaka Khanepani Limited
KVWSMB	Kathmandu Valley Water Supply Management Board
LBCF	Local Body Fiscal Commission
MDG	Millennium Development Goal
MDG	Millennium Development Goal(s)
MLD	Ministry of Local Development
MLD	Ministry of Local Development
MOE	Ministry of Education
MoF	Ministry of Finance
MoHP	Ministry of Health and Population
MPPW	Ministry of Physical Planning and Works
MWDR	Mid Western Development Region
NDWQS	National Drinking Water Quality Standards
NHSP-IP2	Ministry of Health and Population/National Health Strategic Plan -II
NMIP	National Management of Information Project
NPC	National Planning Commission
NWSC	Water Supply Corporation
ODF	open defecation free
PAF	Poverty Alleviation Fund
POU	Point of Use
PRSP	Poverty Reduction Strategy Paper
QARQ	, Quantity, accessibility, reliability and quality,
RRSDP	Rural Reconstruction and Rehabilitation Sector Development Project
RVWRMP-II	Rural Village Water Resource Management Project- II
RWSSFDB	Rural Water Supply and Sanitation Fund Development Board
RWSSP –WN	Rural Water Supply and Sanitation Project- western Nepal
SCANSA	Steering Committee for National Sanitation Action
SEIU	Sector Efficiency Improvement Unit
SSG	Sector Stakeholders Group
SSTWSSP	Second Small Town Water Supply and Sanitation Sector Project
SWAp	Sector Wide Approach to Planning
ToR	Terms of Reference
TWGs	Thematic Working Groups
TYIP	Three Year Interim Plan
TYP	Three Year Plan

UEIP	Urban and Environment Improvement Project
UN	United Nations
UNICEF	United Nations Children Emergency Fund
VDC	Village Development committee
WA-Nepal	Water Aid Nepal
WASH	Water Sanitation and hygiene
WDR	Western Development Region
WQ	water quality
WSP	Water Safety Plan
WSTFC	Water Supply Tariff Fixation Commission
WSSDO	Water Supply and Sanitation Division Office
WUA	Water Users Association
WUSC	Water User and Sanitation (Association) Committee

# 1. Introduction

## 1.1 Snapshot of Sector

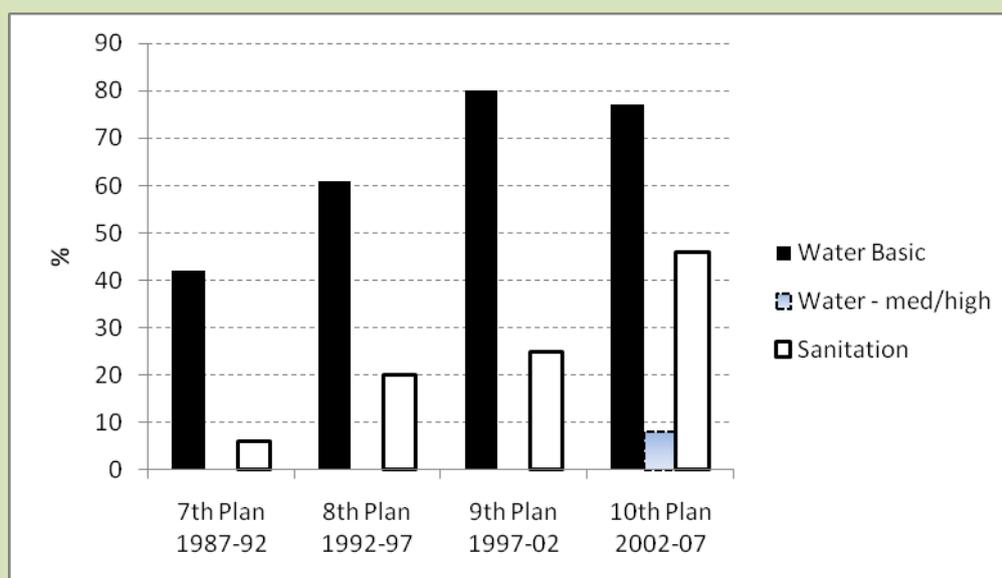
### 1.1.1 Nepal Context

1. The Nepali state is currently in a transitional phase. After signing the Comprehensive Peace Accord (CPA) Nepal is working towards developing a new constitution.
2. The decade long conflict shook the foundations of many established systems. Many local body offices were destroyed and development in the water and sanitation sector was slowed. Access by agencies was dramatically restricted.
3. The conflict also aggravated the poverty situation of the rural areas. This was partly characterized by rural to urban migration and out migration.
4. Despite this situation, development process has still been guided by poverty alleviation and human development goals with inclusion and equity.
5. However, there are indications of progress after half a century of development efforts. As noted below, there has been a gradual increase in water and sanitation coverage despite suboptimal utilization of resources. However, the gains fall short of goals, and there are significant regional and urban/rural discrepancies. It is also commonly accepted that coverage figures do not reflect the challenging sector realities on the ground, especially the actual functioning and quality of services as monitoring has been limited.
6. Further details on the Nepal development context is given in Annex 1-A

### 1.1.2 Coverage – status and targets

7. Although the data for estimating coverage has limitations, this report estimates (based on NMIP 2010) that the existing coverage of water and sanitation services in Nepal is approximately:
  - Water: 80%
  - Sanitation: 43%
8. Currently, about 5.5 million people do not have adequate water service and 16 million lack adequate sanitation facilities. The national target is for universal access to water and sanitation by 2017. The existing coverage compares with the MDG targets for 2015 of 73% water and 53% for sanitation and the current Three Year Plan (2011-2013) targets of:
  - Access to basic water supply service: 85%
  - Access to medium and high: 15%
  - Sanitation: 60%
9. Figure 1-1 shows a simplistic trend of the coverage since 1987. Annex 1- B provides a more detailed tabulation of the historical targets and coverage.

**Figure 1-1: Trends in water and sanitation coverage**



Notes: Due to consistencies in data methodologies, these trends and values are approximate.

10. A significantly larger proportion of households in urban areas (94 %) have access to improved drinking water sources than in rural areas (78 %) (Table 1-1). However, the service level of urban water supplies is generally poor. Access for rural households has exceeded its target of 72 percent, set in the MDG.

**Table 1-1 Water and Sanitation-Urban/Rural Targets and Status by Year**

Locations	1990a	2000 <sup>a</sup>	2005 <sup>b</sup>	2010 <sup>c</sup>	2015 (MDG Target) <sup>d</sup>
<b>Drinking Water</b>					
Urban	90%	86%	93%	94%	95%
Rural	43%	71%	79%	78%	72%
<b>Sanitation</b>					
Urban	34%	80%	81%	78%	67%
Rural	3%	25%	30%	37%	52%

Source of data, , a NPC/UNCT 2005; b CBS 2004; c NPC 2010, d MDG Progress Report 2010

11. The most common sources of drinking water in the mountains and hills are springs. In the Tarai area, hand pumps, deep tube wells and protected dug-wells are the main sources of drinking water.
12. The annual growth rate of sanitation increment is about 1.9 percent over 20 years. Access to sanitation facilities is also much higher in urban areas (78%) than in rural areas (37%), exceeding the MDG target of 67 per cent. Nonetheless, considerable effort is required for rural areas to achieve the MDG targets.

13. There are large disparities of sanitation coverage in the different regions of Nepal (Table 1-2).

**Table 1-2 National Water and Sanitation Status Coverage**

S. N	Development Region	Total Population	Water Supply Coverage		Sanitation Coverage	
			Population	Percentage	Population	%
1	Eastern	6.374.298	4871651	76.4	2692909	42.2
2	Central	9.859.227	8017531	81.3	4543201	46.1
3	Western	5.468.946	4624967	84.6	2927999	53.5
4	Mid-Western	3.646.321	2782076	76.30	1120285	30.7
5	Far Western	2.694.765	2245110	83.3	784647	29.1
<b>Geographical Area</b>						
A	Mountain	1987700	1542782	77.62	668549	33.63
B	Hill	12292169	9827087	79.95	6501912	52.89
C	Tarai	13763788	11171466	81.17	4899480	35.60
	National	28043657	22541335	80.38	12069941	43.04

### 1.1.3 Budget

14. The current trend of annual water and sanitation investments is of the order of NRs 4,000 million. Allowing for anticipated population growth, to meet the aspirational goal of universal coverage by 2017, about NRs 7,500 million per year is required. This is in addition to commitments on the Melamchi project and institutional reforms.
15. The Water Supply and Sanitation Sectoral Strategic Plan 2004 notes that 20% of the water supply budget should be allocated for repair and rehabilitation of water service. However, the typical recent allocations are less than 1%.
16. The same document proposes that 10% of rural water supply budgets are allocated for sanitation. 2009/10 was the first year to begin to implement this policy with a separate national budget line.

### 1.1.4 Impacts of low coverage

17. Diarrhoea is the third most primary cause of death of under five children. In 2006, 12% of children under five suffered from diarrhoea in the first two weeks.
18. Nepal has made significance progress in reducing the infant mortality rate (IMR) and under-five mortality rate (U5MR) in recent years. By 2006, the national IMR had decreased to 48 deaths per 1,000 live births and the U5MR had decreased to 61 deaths per 1,000 live births. There is a high IMR in areas with poor sanitation coverage and those lacking proper hand washing practices. Strong correlations between WASH coverage, occurrence of diarrheal diseases and infant mortality rates have been observed.
19. The increasing urbanisation trend creates pressure on urban sanitation and environmental management. There are concerns that climate change impacts create additional challenges to the WASH sector.

### 1.1.5 Sector issues and characterisation

20. This sector status report shows that to have better water and sanitation sector performance, the sector needs functional, coordinated, harmonized, information based planning and monitoring systems.

21. In overview, the sector is commonly characterized by:
- Institutional fragmentation and limited sector coordination
  - Financing and financial resource constraints
  - Inadequate capacity of local bodies
  - Limited updated and reliable sector information
  - Inadequate attention to water resource management and water quality
  - Socially-excluded communities lack consumer voice
  - Inadequate implementation and incoherent integration of national water and sanitation policies
  - Demand and supply-side weaknesses and inequitable targeting and distribution of resources
  - A large growth of non-state actors, supported by diverse off-budget funding streams.
  - Low overall sector sustainability. Key factors that limit sustainability are reliance on capital hand-outs from government and donors , institutional weaknesses, lack of attention to environmental impacts, inadequate Operation and Maintenance

#### **1.1.6 Sector History**

22. Annex 1-C provides an overview of the sector's history.

### **1.2 Purpose of this Report**

23. The report provides the basis for discussion and agreement for the first Joint WASH Sector Review (JSR). The specific objectives of the first JSR are to:
- take stock of the existing situation of water and sanitation sector
  - provide strategic policy direction and set objectives, strategies and targets for the coming year
  - highlight and agree on the priority issues for the coming year, and
  - review stakeholder consultation and coordination structures and processes.

### **1.3 Process/Methodology of this document**

#### **1.3.1 Joint Sector Reviews - Introduction**

24. The Joint Sector Review (JSR) is a forum for performance assessment, policy guidance, coherent approach to planning and budgeting. JSRs are usually run on an annual basis to discuss the key challenges that the sector faces, review the progress made, and establish key objectives and targets for the coming year.
25. Lessons learnt from countries with JSR experience show that a JSR enhances co-ordination amongst all participating stakeholders, increases performance and accountability, and builds effectiveness in the sector. Common key lessons from these experiences include:
- Sector's provisional undertakings generally tend to be over ambitious
  - Sectors tend to have a lack of understanding of the implications of translating undertakings into actions
  - There is often a lack of formal action plans

- Leadership and delegation of responsibilities for implementation is often unclear
  - There is a lack of legal mandates for donor and CSOs to take issues forward, and
  - Monitoring systems are deficient.
26. The JSR must be seen as an evolving process, particularly as this is the first JSR in Nepal in the WASH sector.
  27. The main aim of the JSR is to build consensus on the review processes and conduct a participatory sector analysis. In addition, joint field visits have been planned and organized to capture key sectoral learning (viz. strengths and areas for improvement).
  28. The proposed theme for the JSR 2011 is: “*Sector preparedness to improve performance and effectiveness*” It will establish agreed and joint processes for setting sector objectives and performance monitoring in the water and sanitation sector. This will be based on the principles of partnerships, coordination and collaboration between the sector stakeholders.

### 1.3.2 Process/Methodology

29. The process has been coordinated by the Sector Efficiency Improvement Unit (SEIU). SEIU was established by the Ministry of Physical Planning and Works. This report has also benefitted from a Sector Stakeholder Group (SSG) (see Annex 1-D) , which is a loose platform for WASH sector coordination at national level.
30. This Sector Status Report is based mainly on the position papers prepared by five Thematic Working Groups (TWG) of the SSG. Annex 1-D presents the Terms of Reference for this work. The sub sectors covered by the TWG are:
  - Sector Financing
  - Institutional Framework and Capacity Building
  - Sustainability and Functionality
  - Sanitation and Hygiene
  - Water Quality
31. Additionally, three cross cutting sub-themes (GESI, M&E and Emergency) were explored to enhance the above themes.
32. The experience to date has shown that process itself has helped build trust and confidence among the sector stakeholders.
33. Although urban issues are briefly discussed, the main focus of the review is in rural services. This is warranted because a separate study is currently being undertaken by SEIU to address emerging urban issues.

### 1.3.3 Information Sources

34. The NMIP/DWSS report has been used as primary source of quantitative information in this report. In addition, TWG position papers are other key sources of information. Reports from MoF, NPC and other sector studies/policies have been utilised to add quantitative and qualitative information.

## 2. Sector Policy/Strategies

### 2.1 Background

#### 2.1.1 Policies

##### 2.1.1.1 National Sanitation Policy and Strategy (1994)

35. In this policy and strategy incorporated health improvement, enhancement in health related knowledge and behavioural development. The policy stressed coordination among concerned stakeholders and directed that the sanitation program be operated in an integrated manner with health, education, water supply and local development programs. While hygiene was becoming more prominent, it was considered within sanitation. Thus there was no separate national policy on hygiene promotion.

##### 2.1.1.2 Rural Water Supply and Sanitation National Policy and Strategy (2004)

36. This policy had the objective of providing water and sanitation access by all Nepali people in order to achieve Millennium Development Goals and national targets. The policy stressed health and sanitation facilities as the basic necessity and rights. The Ministry of Physical Planning and Works formulated long-term and mid-term plans by applying sectoral strategies for 2007 to 2020. The target as noted in the policy was to provide a 100% coverage of both water supply and sanitation by the year 2017.
37. The document notes a mandatory provision to allocate at least 10 % of drinking water supply funds to sanitation and hygiene promotion.

##### 2.1.1.3 Urban Water Supply and Sanitation Policy (2009)

38. This policy recognizes that the scope of urban water and sanitation services extends beyond fulfilling the basic human needs. It aims to improving quality of life through providing safe, reliable, adequate and enhanced services at affordable prices to the consumers. Core elements towards achieving these objectives in a sustainable manner were noted as: compatible infrastructure, appropriate institutional setup, rationalized cost recovery, favourable financing environments, enhanced people's participation and their role in decision making and appropriate partnership with the private sector. The policy adopts measures to safeguard the environment and emphasizes achieving a balance with other competing users of water through adoption of demand and discharge management measures.
39. The Policy recognizes that effective and appropriate institutions must be promoted to develop, implement, operate and manage water supply and sanitation system. Central-line agencies are to serve as policy makers, regulators, facilitators, technical support, monitoring and evaluation agents. Local bodies, Water Users and Sanitation Committees, Water Supply Management Board, Government Corporation and private organizations take the responsibility of ownership, implementation and management responsibility of the projects.
40. The Water Supply Tariff Fixation Committee (WTFC) is responsible for tariff fixation. In order to monitor the performance of service providers the DWSS capacity is to be enhanced and strengthened. To enhance the users' role in decision making community ownership is promoted.
41. As a lead agency, MPPW is responsible for monitoring the sector performance and harmonizing the major sector indicators. The policy gives the role of the Sector Efficiency and Improvement Unit (SEIU). SEIU is to monitor the system and service delivery effectively in a structured manner and to enhance sector knowledge management.

42. In case of the outbreak of disease, a District Disaster Relief Committee serves as a forum for WASH coordination and WSSDO leads the district level WASH cluster. I/NGOs, UN agencies and VDCs are to be the members of the committee.
43. The policy also focuses on the access of the poor and disadvantaged groups to both WASH services and to decision making.

#### **2.1.1.4 The MDG (2000-2015)**

44. The Millennium Development Goals (MDGs) provide specific targets to be reached by 2015.
45. Nepal's commitments to the MDGs in WASH sector are: 73% coverage in water supply and 53% sanitation coverage.

#### **2.1.1.5 The South Asian Conference on Sanitation (SACOASN)**

46. Nepal's commitment in meeting the universal sanitation goals has further increased with its participation in the SACOSAN. The Sanitation and Hygiene Master Plan, currently in the process of approval is one significant outcome of SACOASN III.
47. The Government of Nepal has made regional commitments to improve sanitation in Nepal.

#### **2.1.1.6 Three Year Interim Plan – TYIP (2007/08-2009-10)**

48. The TYIP focused on the direct linkage between water supply and sanitation and people's livelihood as improved water supply and sanitation ultimately contribute towards nation building and prosperity by enhancing health status and thus, enhancing and increasing economic productivity. The long term vision of the sector in the TYIP is to contribute towards raising the living standard and health by making sustainable and equitable water supply services available.
49. The objectives for the sector in TYIP were set as:
  - (i) ensure sustainable water supply services and a healthy environment by institutionalizing socially inclusive development initiatives;
  - (ii) gradually providing purified drinking water to the whole population;
  - (iii) providing treatment facility with an inclusive sewerage system in urban, semi-urban areas and emerging towns; and
  - (iv) providing toilets using appropriate technology in rural areas.
50. It set many strategies including:
  - (i) Provide reliable drinking water and sanitation services to all by 2017 by gradually increasing in the quality and services standard of the drinking water.
  - (ii) Complete drinking water and sanitation projects which are incomplete and thus give a return in a short period.
  - (iii) Promote local participation and ownership in the process of designing and implementation of the projects.
  - (iv) Ensure the availability of service through maintenance and repair of constructed drinking water infrastructure and make the management more effective.
  - (v) Adapt gradually, the sector-wide approach to planning (SWAP) in the program of water and sanitation.
  - (vi) Construct environmental friendly (including adaptation to climate change) infrastructures of drinking water and sanitation that will utilize and promote the local resources.

- (vii) Improve gradually, the quality of drinking water to meet standards set by the National Water Quality Standard/Guidelines.
- (viii) Enhance institutional capacity for a sustainable service of drinking water and sanitation (TYP Approach Paper-2010/11-2012/13, pp.132-133).

#### **2.1.1.7 Three Year Plan Approach Paper (2010/11-2012/13)**

51. The TYP Approach Paper translated these strategies into action. Its perceived outcomes were 85 % coverage of access to basic water supply, 60 % sanitation coverage, 15% coverage of medium and high quality of water services.
52. It recognizes that water supply and sanitation services are the fundamental to human development. It also acknowledges a wide gap between rural and urban coverage of both water supply and sanitation. It further realizes direct disposal of sewerage in the water sources (river, rivulets, and pond) is a challenge to improve the surface water quality.
53. The general strategies of the TYP reiterates the previous commitments by completing incomplete water supply schemes and sanitation programs which would have positive impact, increasing people's participation in project cycle activities, gradually incorporating a sector-wide approach to planning (SWAP). It also proposed improving institutional capacity by improving sector personnel.
54. Other key aspects were: maximum utilization of local resources, simple technology, including alternative methods of rain water harvesting (RWH) and launching a coordinated sanitation program with other agencies. Open defecation free (ODF) campaigning will be conducted under the plan. Construction of toilets will be linked with the sanitation activities in program areas.
55. Under the plan, the quality of drinking water will be gradually improved in the urban and peri-urban areas in accordance with the National Water Quality Guidelines. It proposed the full integration of sewerage, on-site sanitation and solid waste management in urban schemes/projects endorsing the cost recovery model. Local authorities are made responsible of overseeing scheme/project implementation with an increasing role of non-state actors. It highlights the need of improvement of transparency, good governance, equity and inclusion of socio-gender aspects.
56. There will be a focus on capacity building of human resource including research and documentation. Additionally, amendments of existing and preparation of policy, acts, bylaws etc will be carried out. All actions are to be with minimum adverse effects of climate change.
57. The TYP urges all the state and non-state actors' to follow the DDC planning process and priorities.

#### **2.1.1.8 The Sanitation and Hygiene Master Plan (2010-2017)**

58. Understanding that improvement of sanitation and hygiene is the shared multi-sectoral responsibility of all individuals, households, communities and institutions at different levels this plan outlines policies to maximise their impacts. To emphasize multi-sectoral planning, programming, implementation, supervision, and monitoring of sanitation and hygiene programme, the Master Plan has envisaged a multi-sectoral coordination mechanism from VDC to national level.
59. Health professionals, are seen as contributing to messages on sanitation and hygiene behaviour changes at VDC and community level. This is done through health posts, district Public Health Offices (DPHOs), female community health volunteers (FCHVs) and health promoters of NGOs.
60. The education sector is seen as contributing to sanitation and hygiene promotion through schools, as School Sanitation and Hygiene Education (SSHE) and School Led Total Sanitation (SLTS) programs, and 'Child to Child' and 'Child to Home Outreach' approaches.

61. Bio-gas support programmes have played and will continue to play an important role in improving rural sanitation and hygiene by improving sanitation and reducing indoor pollution.

### **2.1.2 Acts and Regulations**

62. Annex 2-A provides a brief summary of the following acts and regulations:

- National Drinking Water Quality Standards
- Environment Protection Act
- Nepal Water Supply Corporation (NWSC) Act
- Water Supply Management Board Act
- Water Supply Tariff Fixation Commission
- Local Self Governance Act
- Water Resource Act and Regulation
- Rural Water Supply and Sanitation National Policy and Strategy
- Urban Water Supply and Sanitation Policy

### **2.1.3 Gender Equity and Social Inclusion (GESI) Policies and Practices**

63. There are significant disparities in access to WASH services geographically, income-wise, and ethnically. For example, access to sanitation among the richest quintile is about 80 percent, while among the poorest quintile it is only 10 percent.
64. Disparities also exist in access to sanitation between groups based on economic status, urban/rural residence and geographic regions. Access to improved sanitary facilities has increased over time, but 94 percent among the wealthiest use improved facilities while only 3 percent of the poorest do so.
65. Annex 2-B presents a summary of the existing status, policies and practice from the GESI perspective. Two important policies are Rural Water Supply and Sanitation Policy 2004 and Urban Water Supply and Sanitation Policy 2009.
66. Recently, national and local level policies in relation to water and sanitation in Nepal have emphasized the need to be gender and socially inclusive and demand-driven. Unfortunately, most of these new priorities remain an act of tokenism as structural and social inequalities continue to persist.
67. While sector actors may be keen to improve WASH service delivery to more vulnerable and often marginalised groups in Nepal, sometimes a lack of systematic planning can influence project selection rather than planning based on genuine community demand. Support agencies and organisations are usually under immense time pressure to complete projects in a given time-frame and this can undermine their ability to genuinely address GESI issues and work with excluded groups.
68. A lack of institutional diversity in the WASH sector and poor understanding of GESI issues has a negative impact on equitable service delivery in Nepal. WASH related ministries and departments are usually dominated by male professionals with strong technical expertise but few skills to deal with GESI issues. There is also a scarcity of women engineers in Nepal and a limited pool of qualified candidates from excluded groups for joining the sector. An enabling environment for encouraging more female professionals and professionals from excluded groups needs to be created through strengthened policies and approaches.
69. There have been provisions for giving staff half-day training on GESI but little to no investment on including GESI principles as part of work responsibilities. There is a Gender Focal Point and Social Development Officers in the Ministry and

departments but this approach has not been very effective for addressing GESI issues as the officers and focal point lack authority and responsibility (ADB, 2010).

70. Various agencies and institutions have developed specific GESI programmatic approaches and responses with many applying similar elements in their approach Annex 2-B includes a table which demonstrates various GESI components in some WASH sector actor's programmes.

#### 2.1.4 GESI Governance

71. The RWSS Policy and the RWSSS Strategic Action Plan (2004) suggests that 30% and 50 % respectively of women representation in the WSUCs is appropriate. However in 2010, there was only 11.3% women average representation in the WSUCs nationwide.
72. While a number of national and local level policies in the WASH sector do emphasize the need to be gender and socially inclusive, policies tend to be fragmented with separate policies for water resources, sanitation, water quality and rural/urban WASH. If GESI strategies and policies between sector actors were harmonised, GESI commitments in the WASH sector could be strengthened and implemented.

## 2.2 Issues

73. These national strategies and policy framework are generally accepted by most stakeholders. However, many elements of the policies have not been implemented and there are large gaps between policy provision and compliance.
74. Key handovers of responsibilities and co-ordination efforts have not been implemented or have been seriously delayed. The inconsistency of data and lack of an agreed framework for measuring progress has allowed slippages to occur. There seems to be a lack of will and leadership to put in place the very many good ideas in the GoN's own policies.
75. The key policies or issues which need improved compliance are:
76. **RWSSP 2004 and Urban WSS Policy 2009** especially coordination issues; demarcation of agency's roles and responsibilities for delivering WASH services for various sized communities; and service levels. Nepal's policy makes local service providers accountable to the water consumers but is only partially complied with. Similarly, RWSSS states that 20% of the national rural water supply and sanitation fund should be allocated for rehabilitation and repair of the existing water supply. Despite this, most of the sector actors seem to be more interested building new schemes instead of repairing and rehabilitating existing schemes.
77. **National Drinking Water Quality Standards** - see Section 8
78. **Implementing Demand-Driven Policies.** Since the 1980s the GON has been trying to implement demand-driven policies. There are many examples of demand driven programs, however, often, the voice of the poor and remote communities are overwhelmed by elite groups and people from accessible area.
79. **Low Sustainability.** As noted in Section 6, sustainability in the sector is low. The policy and guidelines on sustaining rural and urban water supplies need to be reviewed with a view to structurally improve sector sustainability. Section 4 notes some related financial policy issues to increase sustainability.
80. **Cost Recovery.** The policy and legal frameworks for urban services to develop into creditworthy utilities to achieve cost recovery needs to be reviewed and strengthened. There is also a need to review the financing modalities for consistent cost recovery in urban systems.
81. **Inadequate Capacity in Local Authorities:** Lack of required level of local capacity and resources to develop and deliver effective services is a significant

constraint in municipalities, districts and villages. The private sector has limited engagement with the sector and the capacity amongst the many NGOs is uneven. The reform of urban institutions is proceeding slowly. Devolution policies have not been put into effect. Guidance to policies which can increase sector capacity and, where appropriate accelerate decentralization is required.

82. As discussed above, effective participation of women or other marginalised people in WUSCs in decision making is low.
83. No one act/policy covers WASH holistically in line with other prevailing acts and regulations. This creates confusion and contradictions among the sector actors. An umbrella Act is currently being initiated.

### 2.3 Recommendations

84. **Strategy to implement policies.** Use the forthcoming sector assessment to analyse implementation and compliance Nepal's policies. This could identify which policies which are good and being implemented, good policies not being implemented, and areas of policies that need further consideration. Initially, an analysis should be conducted to identify why policies are not being implemented in:
  - Urban water
  - Rural water
  - Urban Sanitation and hygiene
  - Rural sanitation and hygiene
85. Each subsector should then develop key policies that need to be implemented.
86. **Policy Benchmarking and monitoring compliance**– Develop a system for monitoring and benchmarking compliance of policies.
87. **Policy dissemination and marketing.** Increase the marketing and dissemination of policies and provide a forum where these are discussed to encourage implementation.
88. **Improve GESI implementation.** To ensure a more systematic and inclusive approach to GESI principles in the WASH sector, a greater emphasis is required in designing GESI sensitive interventions, monitoring and evaluation indicators disaggregated by sex, caste/ethnicity/regional identity and location as well as policy directives, especially from the Government.
89. Accelerate drafting and enactment of the proposed umbrella act.

## 3. Sector Coordination

### 3.1 Background

#### 3.1.1 General

90. Some of the principal characteristics of the sector include: fragmented sector institutions, lack of clarity on roles and overlapping responsibilities at all levels, project focus modality of implementation.
91. Sector dialogue and coordination arrangements have been outlined in policies and strategies. The GoN has stated its intention to move towards SWAp in the Three Year Plan Approach Paper (2010/11 – 2012/13) in order to facilitate the coordination among sector actors and therefore established the SEIU. Sector actors have shown their willingness to increase sectoral coordination, linkages and partnerships.
92. The SSG (See Annex 1-D) is seen as pivotal in sector coordination. Since formation, of the five thematic working groups, they have identified key issues and put forward recommendations for improved performance. The process and dynamics of these groups has itself created an environment to build better sector coordination.

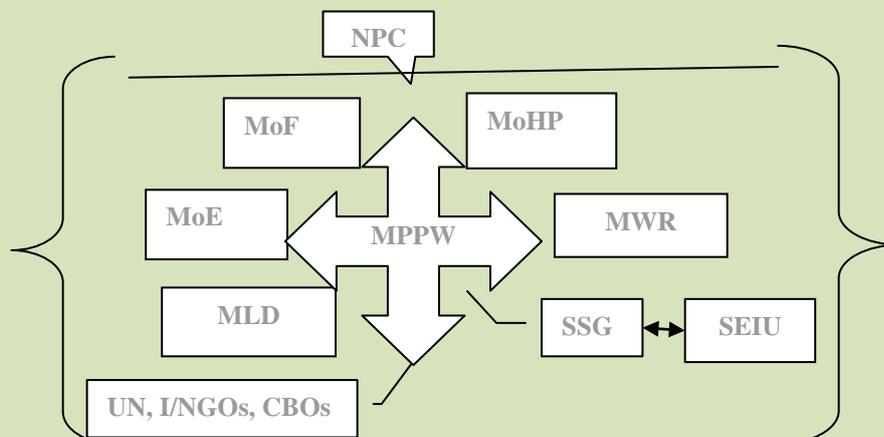
#### 3.1.2 Sector Dialogue and Coordination Mechanisms

93. An overview of agency's roles and responsibilities is presented in Section 5.

##### 3.1.2.1 Central level

94. According to formal policy, at the central level, National Planning Commission (NPC) coordinates all development plans and programs. NPC submits plans and programs to cabinet for approval through the local planning process. In the WASH sector, activity coordination mechanism and platforms exists via the SSG process. The key sector agencies namely DWSS, DoLIDAR, and RWSSFDB have signed a Memorandum of Understanding (MoU) but it is yet to be translated into action.
95. In practice, the SSG operates as a loose forum for discussion but is not functional and proactive. It is also too large a body for regular consultation. In reality, the sector lead ministry is the MPPW.
96. Figure 3-1 reflects the central current structure and coordination mechanisms.

**Figure 3-1 Coordination Arrangements at Central Level**



### 3.1.2.2 District and local level

97. The district level coordination mechanism and platform is indicated in the Figure 3-2. All agencies working within a district have to be part of the DWSSCC. The DWSSCC represents a coordination platform and mechanism for inter-sectoral linkage. The Local Development Officer chairs the DWSSCC meeting. Similarly, at the VDC level there should be a coordination mechanism/platform by following more or less the same representation modality.
98. In this regard, all institutions (government, private sector, DPs, I/NOGs, etc) should compulsorily share, coordinate, and establish networks for information exchange on the basis of programmatic approach through the DWSSCC.
99. The Division/ Sub-division Office of Water Supply and Sanitation works as secretariat for the coordination. Any organization/institution working within the jurisdiction and scope of local bodies (except central level project), should abide by the local planning process.

**Figure 3-2 Inter sectoral linkages at District Level**



### 3.1.2.3 Rural Sector

100. The sector policy assumes the DWSSCC coordinates and shares information among the sector actors. There are many agencies working in the rural areas including government and non government agencies so the coordination role is vital.
101. The District Development Council (DDC), at the district level, is a strong mechanism for district planning process. In practice, coordination and sharing of information is lacking, despite the system and platform of Bottom-up Planning Process or 14-Point Planning Process, which is forwarded by local bodies (VDC & Municipality through DDC) to the National Planning Commission. The yearly planning process of Nepal is indicated in Figure 3-3.

**Figure 3-3 Steps of Participatory District Development Planning Process**



**3.1.2.4 Urban Sector**

- 102. In urban area, the DWSS concentrates in district headquarters, semi urban areas, and municipalities outside Kathmandu valley. The Small Town Water Supply and Sanitation Sector Project under DWSS also implements water supply and sanitation programs. Nepal Water Supply Corporation (NWSC), *Kathmandu Upatyaka Khane Pani Limited* (KUKL) work as utility operators. Department of Urban Development and Building Construction (DUDBC) with local body (Municipality) implements water supply and wastewater management systems under Urban Environment Improvement Project (UEIP).
- 103. These agencies are working without effective coordination and information sharing mechanisms. Fund flow is mainly through government agencies with the help of bi-lateral & multi-lateral donors, UN agencies and I/NGOs.

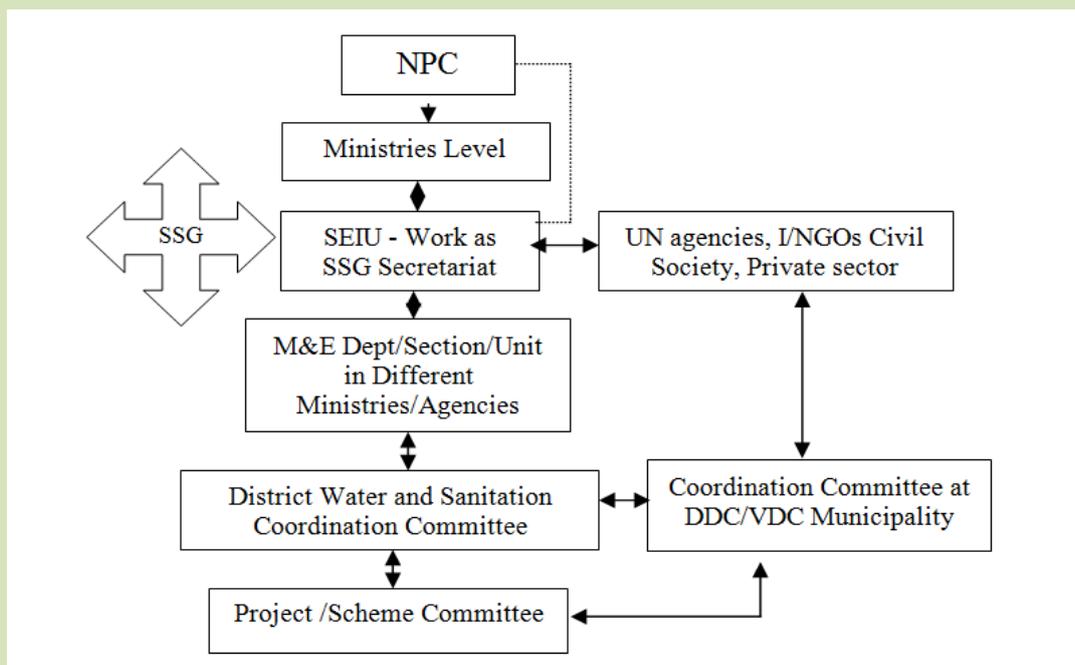
**3.1.3 Evolving Structures**

- 104. As previously noted, the SSG is the intended coordination platform and mechanism. Commitments have been made towards coordinated planning, program approach and into a Sector Wide Approach to Planning.
- 105. The majority of stakeholders' understanding about SWAp is that it creates a basket funding mechanism. They are reluctant to accept that approach with the fear of losing their role in fund operation. However, the SWAp is intended to be far more than creating a pool of funds. Its purpose is intended to be a first wave of thinking

for sector reform with roles including coordinated planning, harmonization, information sharing coordination and monitoring, enhancing sector efficiency, effectiveness and accountability. Members recognize that these cannot all be done at this time. Therefore, simple and 'doable' actions are initially needed.

106. However, follow-up of commitments made in the SSG and other similar platforms is poor. The current need is to set up a committed structure to drive the process.
107. It is anticipated that the SEIU will be developed as a platform for policy dialogue, coordination, action research, policy monitoring, outcome and innovation for efficiency and effectiveness, as well as providing a network for mutual learning and sharing of experiences. Joint Sector planning and reviews will be conducted jointly with other sector agencies on a regular basis
108. In order to have a meaningful impact, the SEIU should have adequate logistic and intellectual capacity. It is also important that learning is institutionalized and adapted by implementing partners, and the SEIU be developed in that direction. The SEIU is currently being headed by the Joint Secretary of Water Supply and Sanitation Division of MPPW but has lean staffing strength.
109. As a unit, it is logical to maintain a lean structure and carry out activities and studies through outsourcing. But there needs to be a sufficient assurance for funding of such activities. It is also important to have a continuous support of three or four in-house experts to plan and monitor the activities. The most rational way to have such arrangements is to hire staff consultants under a fixed term appointment who will lead their respective areas and to provide counterpart support to them through limited government staff by deputation. It is preferable to have a national champion to guide the entire program.
110. The SEIU has floated a funding proposal for the period of 3-5 years as common basket fund, in which every interested donor can put its contribution for sector efficiency purpose. One option might be to develop a five year SEIU Program that clearly defines the future strategic plan for sector and provide a basket funding to support.
111. The SEIU will play a key role as secretariat of the SSG for overall coordination. The SEIU needs to be given responsibility for functional linkage and coordination with ministries, departments, UN agencies, I/NGOs, civil society, and private sector as shown in Figure 3-1.
112. Figure 3-4 explains the proposed linkage of coordination and information sharing.

**Figure 3-4 Proposed Institutional Mechanism/Platform**



### 3.1.4 National Plan for Sector Development

#### 3.1.4.1 Process

113. Formulation of legislative and devolution framework including a clearer separation of policy making, regulatory and service delivery roles and responsibilities are priority actions. Institutional structures and mechanisms that work across the various sectors (e.g. health, education and local development) will have a gradual greater budget allocation in their respective plans.

#### 3.1.4.2 Creation of accountable Institutions

114. Service providers and operators must be accountable to users. Civil society networks are better able to capture the local people's voice, inform sector policy and hold service providers to account. While District Water User Groups (in rural areas) and NGO networks (in urban areas) are strengthening users' capacity, much more needs to be done to institutionalize mechanisms for users' voice in policy-practice fissure.

#### 3.1.4.3 Strong Doable National Planning Frameworks

115. With next fiscal year approaching, development of a national plan is being tabled for discussion. The plan will contribute towards shared responsibility and mutual accountability, by setting out how the sector will organize resources to meet its policy objectives with commonly agreed targets and strategies for implementation. To roll out this process well in future, continued dialogue and consultation would be very essential. The first Joint Sector Review (JSR) is illustration of this commitment.

### 3.2 Issues

116. Despite published policies, and a poverty reduction strategy policy which prioritises the sector and an established institutional framework, the sector in Nepal is characterised by its diversity of sector institutions (several working in parallel with

overlapping responsibilities), and a project focus (with a range of modalities of project implementation to some extent undermining each other).

117. The SSG is comprised of a loose, large membership which makes it ineffective to drive the sector efficiency and improvement.
118. The existing coordination mechanisms at all (SSG, NWSSCC and DWSSCC) levels are weak and not properly function. The roles and responsibilities are also not clearly defined.

### **3.3 Recommendations**

#### **3.3.1 Strengthen National Level Coordination**

119. The SSG should form within itself, an executive management team comprising key ministries including other stakeholders. The management team should be no more than 12 people. Terms of reference need to be developed and clarity given on its scope of role and responsibility and reporting system.
120. Given that the WASH sector has many diverse sub-sectors with different interest groups, the SSG should create specific subcommittees. The chairs of the subcommittees should be the key concerned lead Ministries and the membership reflect the agencies (state and non-state) most concerned with that sub-sector. A possible arrangement would be three key sub-committees: Rural Water Supply, Rural Sanitation and Hygiene; Urban water supply and urban sanitation and hygiene.

#### **3.3.2 Strengthen District Coordination Platforms**

121. Appropriate actions include:
  - Ensure DWSSCC member secretary follow up recommendations and act as a secretariat
  - Identify the roles and responsibilities of the agencies at district
  - Authorise DWSSCC to: validate its WASH information; share information; coordinate and establish information networks
  - Establish a coordination mechanism at VDC level, similar to the district level.

#### **3.3.3 Strengthen Reporting from Coordinating Bodies**

122. Establish responsibility for reporting and two-way communication between national and district levels
123. Develop an Annual Program of Coordination meetings as in the form of JSR or other appropriate means.

#### **3.3.4 Develop a WASH Sector Nepal Agreement**

124. Develop a Government-Donor-NGO-Multilateral Sector Agreement to work together, comply with policies, increase attention to the WASH sector, improve reporting, align with government policies and institutions, and adhere to cost-effective approaches based on objectively-verifiable evidence.

## 4. Sector Finance

### 4.1 Background

125. Programmatic priority can be reflected in the budget allocation for the development of a particular sector. The Interim Constitution of Nepal (2006) has given high priority for social sector development including provision of water and sanitation following the prior commitment of MDG by 2015 and universal coverage by 2017.
126. During the four decades (Fiscal Year 1970 - 2009/10), the Nepal government allocated about Rs. 73 billion. At the current population, the per capita budget allocation is approximately Rs. 2,500. However, after allowing for/ discounting the Melamchi project, and institutional reforms, the total budget allocation in the four decades is about 43 billion rupees. This implies that the real per capita budget allocation about Rs.1, 700.
127. The 1980 decade showed dramatic growth of budget by 46%. This was due to response to UN Water decade. The decades of the 1990s and 2000,s annual growth rate of budget allocation declined compared to growth rate of 1980's. However, in absolute terms, a significant amount growth is observed (from Rs. 6 billion to Rs. 19 billion during 1980's to 1990's and further to Rs.47 billion during 2000's decade). It is ironic that that this growth is largely due to the Melamchi project and the reform process.
128. In order to achieve universal coverage government commitment continued and the expenditure in social service sector has increased. The percentage of share of drinking water and sanitation expenditure in total public expenditure grew during period from 2.4 % in 2004/05 to 4.2% in 2008/09. The percentage of share of drinking water and sanitation expenditure in total social sector expenditure grew during period from 9.6 % in 2004/05 to 15.5% in 2008/09.
129. Internal sources as a percentage of public expenditure averaged 70% over the five year period 2004/05 to 2008/09; however they fluctuated with a low of 63 percent in 2007/08 and high of 81% in 2006/07. Financing from external resources (foreign aid) averaged 30% of public expenditure over the period.
130. The internal financial resource has increased during 2002/03-2008/09 from 11.71% to 50 percent in water and sanitation sector. This indicates that the government has also given priority in water and sanitation programs by increasing internal resource allocation from 25 to 57 percent during 2004-2009.
131. Absorptive capacity in term of actual spending of Basic Social Services (BSS) against budgeted allocation has fluctuated in the social sector overall at a budget utilization rate of around 85%. The budget utilization rate for drinking water and sanitation fluctuated around 86%. There were instances where utilization has gone down as low as near to 30% in between 2004/05 and 2009/2010.
132. The share of basic drinking water supply and sanitation in total drinking water and sanitation expenditure averaged 70% compared to 30% for non-basic drinking water and sanitation.

133. Table 4-1 shows the resource allocation in the sector through On and Off budget streams for last six years.

**Table 4-1 National Water and Sanitation Status Coverage**

Agencies	Allocated Fund	% of On budget	% of total budget
<b>CBWSSP</b>	<b>10,386,363,607.00</b>		
<b>Small Town</b>	<b>3,111,962,515.00</b>		
<b>DWSS Total</b>	<b>13,498,326,122.00</b>	<b>68%</b>	<b>60%</b>
<b>DoLIDAR</b>	<b>3,848,142,818.00</b>	<b>19%</b>	<b>17%</b>
<b>RWSSFDB</b>	<b>2,642,315,895.00</b>	<b>13%</b>	<b>12%</b>
<b>Total on budget</b>	19,988,784,835.00	<b>100%</b>	
<b>Total budget in district</b>	22,543,082,434.00		
<b>Off budget amount</b>	<b>2,554,297,599.00</b>	<b>13%</b>	<b>11%</b>
			<b>100%</b>

134. The district and agency wise budget allocation during 2004-2010 is given in the Annex 4-B.
135. The Table 4-2 shows that DWSS is the largest sector budget recipient (68%) followed by DoLIDAR (19%) and then RWSSFDB (13%) during 2004-2010.
136. The contribution of outside line agencies to expenditure on basic drinking water and sanitation is high compared to expenditure for basic education and basic health. During the reporting period, the percentage share of basic drinking water and sanitation expenditure by outside line agencies ranged from 35.5% in 2004/05 to an estimated 28.7 % in 2008/09, peaking at 43.3% in 2005/06. The rural drinking water and sanitation program implemented through the MLD, with funding from FINNIDA, made a significant contribution to drinking water and sanitation expenditure by outside line agencies.
137. The Medium Term Expenditure Framework (MTEF) has become a regular part of the government to reflect its priority in budgeting and planning since 2002/03. The MTEF links the annual budget with the PRSP priorities and ensures full budget release for priority one (P1) projects even in a situation of resource shortfalls. The MTEF process has set the criteria for classifying projects into P1, P2 and P3 and ensured budget availability accordingly.
138. In addition to water supply, GoN specified a separate budget line for the purpose of sanitation and hygiene by the fiscal year 2009/2010, (for details see Chapter Sanitation and Hygiene); indicates the realization of the importance of financial arrangement to achieve the universal sanitation coverage which is far below (43%) compared with drinking water supply (80%) coverage.
139. Total WASH sector investment for the fiscal year 2010-11 is around Rs. Nine billion which is allocated nearly equal percentage for urban and rural area, although nearly 85 percent of population resided in the rural areas (CBS, 2001).
140. WASH sector financing in urban areas increased from about Rs.4 billion to Rs 4.6 billion during 2009- 2011. It is accounted for 17% growth against decline in overall WASH sector budget. Even though, Ministry of Finance alone consumes 70% of urban WASH sector budget growth for ensuring loan repayment guarantee or matching fund related to water utility reform and small town projects.
141. During the period of 2004-2010, the Off-budget stream in the sector is more than 13% which is more or less equivalent to RWSSFDB total allocated budget for the same period of time. The scenario indicates that there are many sector actors

without a commonly agreed and shared mechanism and platform in the sector is a challenge for harmonization.

## 4.2 Issues

142. **Resource Gap:** Current real per capita budget allocation is about Rs, 1,700. In order to provide the basic water and sanitation services and meet the national goal by the year 2017, a per capita expenditure of about Rs. 3,500 is required. This is equal to Rs.7.5 billion investment per annum. The last six year practice shows average per annum sector investment is around 3.8 billion which is half of the requirement in the sector. For details calculation see Annex 4-A.
143. **Sanitation:** Considering the present status of sanitation coverage (43%), there is a wide gap so as to meet the universal coverage by 2017. The conventional trend of budget allocation cannot address to fulfil it and current resource allocation is significantly low.
144. **Sustaining Present assets:** The policy provision in the Sector Strategic Action Plan 2004, maintains that 10% of the budget allocated to the rural water supply and sanitation should be spent for sanitation activities and 20 % for rehabilitation of existing water supply systems/schemes. In practice such provisions are neither fully abided nor allocated accordingly.
145. **Improving service level;** Current resource allocation doesn't necessarily address needs for improving service level, water quality, and urban sanitation, solid and liquid waste management. In addition, resources required for cost recovery have not been fully taken into consideration.
146. **WASH Governance and Revenue:** The poverty, low tariff and poor collection system limit revenue streams while households make high investment in coping mechanism. Huge amount of government budget is flowing through local bodies, but there is no predictable allocation in water and sanitation sector and progress is not reported to the sector agencies.
147. **Harmonize Financing:** Having multiple players without a commonly agreed and shared mechanism and platform in the sector is a challenge for harmonization.
148. **Equity Financing:** Current resources distribution practice is still conventional. Currently available sector information has not been fully utilized to allocate resources by geographical, ecological region, district and VDCs. Furthermore, resource distribution mechanism does not give attention to reach the unreached.

## 4.3 Recommendations

149. In order to achieve MDG and National target of Universal coverage, resource allocation should be based on resource gap and absorption capacity of the sector players.
150. In the spirit of sanitation hygiene master plan and commitment in SACOSAN, allocate funds in the separate budget line to the all sector players to meet the set target.
151. Ensure policy compliance and allocate the funds for capacity building of WUSCs and rehabilitation of existing water supply schemes/projects. In addition, allocate funds to ensure ODF declaration in water supply service areas.
152. To meet the emerging need of water supply and sanitation in urban and semi urban areas, commission a comprehensive study to improve service level, water quality, and urban sanitation, solid and liquid waste management and capital cost recovery, allocate subsequent resources.
153. Advocate reviewing budget allocation (Central grant and local revenue) of local bodies and negotiating certain percentage of resource allocation for water and

sanitation sub-sector. Establish reporting mechanism of such contribution in the sector to avoid gap and overlap of resources.

154. In order to harmonize sector financing, utilize existing coordination platform to ensure a commonly agreed financial procedures and directives defined in the sector policies. While allocating resources, equity issue should be given due consideration.
155. Off budget allocation should be made predictable and transparent. All sector development partners should inform and share information regularly on resource allocated in the water and sanitation

## 5. Institutional Arrangements and Capacity

### 5.1 Background

#### 5.1.1 Roles and responsibilities of key sector institutions

156. **National Planning commission (NPC):** it reviews of plans, policies; strategies and recommend for approval, coordinates between Ministry of Finance (MoF) and MPPW on sector financing; includes sector plan into Periodic Planning Document; reviews of M&E and tracking the sector progress, leads participatory approach of plan preparation, establishes linkage objectives and target with the national budget allocation, and channelizes resources through appropriate agencies.
157. **Ministry of Physical Planning and Works (MPPW):** The ministry chairs the SSG meeting for policy formulation and information dissemination; prepares/reviews national policy on service level, quality standard, technological choices, action research, public private partnership (PPP), human resource development (HRD) issues; strengthens management information system and link it to informed decision, for planning, budgeting, progress tracking; establishes mechanism with MLD and others for coordination on the sector activity, coverage, avoid confusion and duplication of programs based on population size; clarifies roles, and responsibility between MLD and MPPW on project/program cycles; establishes effective modalities for sector investment, and strengthen and functionalize SEIU within MPPW, and make proactive M&E function.
158. **Ministry of Finance:** Allocates budget and timely releases it to executing/implementing agencies; coordinates with donors to fulfil resource gaps and channelize resources through appropriate agencies.
159. **Ministry of Local Development (MLD):** Assists DDC to establish unit of RWSSP according to LSGA 1999 and performs it roles and responsibilities in coordination with MPPW, DTO & WSSDO for sector activities; set up a system of coordination for M&E and other functions of MPPW in line with the policies; and establishes effective modalities for investment on sector activities.
160. **Ministry of Health and Population (MoHP):** establishes a functional coordination, policy and strategic work among WASH actors; take initiation of Water Quality Surveillance system; provide support on development of annual plans; launches awareness building programs on hygienic behaviour; monitors line agencies works on WASH thereby to reduce health problems related to WASH; materializes NHSP-II plan and carry out research and development of preventive and curative health services.
161. **Ministry of Education (MoE):** Ensures to include safe water and clean sanitation in school curriculum; and mentions the mandatory provision of users' friendly safe water and improve sanitation in educational institutions
162. **Sector Efficiency Improvement Unit (SEIU):** Facilitates to establish a common basket for resources (finance, human resources) in order to sector effective and efficient; uses information for joint planning and programming, facilitate to develop a common plan and to meet the universal target for the sector, it works as secretariat to the SSG under MPPW structure; defines and clarifies roles and responsibilities including structures, resources and capacities; clarifies institutional support and ensure resources for at least five years; SEIU should function as knowledge hub of WASH-in the light of developing, SWAp; SEIU can be a logical platform for the donors to work together: sharing lessons, supporting sector initiatives (research, reviews, studies, etc), conducts policy monitoring and initiate for the review, amendment and promulgation of existing sector policies, acts and regulations,

- builds on the experiences and achievements of M&E Unit, and identifies needs of the sector actors for capacity building.
163. **Department of Water Supply and Sewerage (DWSS):** Gears up its overall efforts to meet the universal sector target by 2017 by mobilizing/facilitating its structures; takes leading role in the coordination during normal and emergency/disaster and M&E; collects, updates and manages sector information; take responsibility to coordinate sector actors at DD Planning process; and facilitate to act proactively to DWSSCC as sector secretariat.
  164. **Department of Health Services (DoHS):** Establishes functional institutional relationship for health and hygiene information and actions; promotion health and hygiene education programs, public health disaster response in coordinated manner; facilitates for capacity building of districts rapid response team (RRT); mainstreaming menstrual hygiene management in ongoing safe motherhood program; and establishment of water quality surveillance system.
  165. **Department of Local Infrastructure Development and Agriculture Roads (DoLIDAR):** facilitates health related issues, advocacy and influencing work for trigger interest through local bodies; help to establish functional institutional linkages; and conduct research, organize campaigns & events to contributes WASH.
  166. **Local Bodies (VDC, Municipality & DDC):** Ensures the access of basic water supply and sanitation to everybody through the established Local Planning Process; monitors and evaluates the on-going and implemented WASH programs to ensure better performance; lobbying for more resource allocation for; and make sure the interest of the marginalized and deprived community in decision making and benefits sharing.
  167. **Non-Governmental Organizations (NGOs):** Organize advocacy, lobbying and campaigns for water and sanitation services as a basic human right; facilitate and implement WASH services, actively participate in SSG & DWSSCC.
  168. **Civil Society Organizations:** Advocate basic water supply and sanitation as people's fundamental right; lobby for users' rights and monitor the policy implementation; and participation SSG, DWSSCC & VDC level planning, monitoring etc,
  169. **Donor Communities:** follow the country's development framework align their efforts in line with Paris Declaration and Accra Follow up actions.
  170. Intersectoral linkages are discussed in Section 93.

### 5.1.2 Capacity

171. An institutional mapping exercise is shown in Annex 5-A.
172. DWSS concentrated its efforts initially in water supply and sanitation at district headquarters whereas NWSC operated in the municipal areas. Later on, DWSS extended its operations in the rural areas. It was envisaged that DWSS would play a facilitating role. However, DWSS has had both a facilitating and implementing role. Financially, DWSS is seen as the first one which outlays the highest annual expenditure in the sectoral contribution. It has the longest institutional memory with robust technical and other human resources. It serves about four hundred thousand populations annually.
173. DoLIDAR, among others, it has been created to deal with rural infrastructure and technical facilitation to the local bodies. RWSSP-WN focuses more on sanitation and then water supply. RVWRMP-II has been working in Far Western Nepal as multi-purpose water resource, micro-hydro including water and sanitation. RRRSDP also has been working in WASH in 38 project districts.

174. RWSSFDB was established to bring about fundamental changes in conventional supply oriented approach to adopt a demand driven and participatory development approach in the rural water supply and sanitation. Its delivery mechanism is intended to capture people's needs and expectations and to bring resources closer to beneficiaries. It has implemented schemes in 74 districts.
175. The NWSC is works as an operator in 22 urban areas and KUKL operates in for Kathmandu Valley.
176. DWSS has qualified and sufficient human resources at central and local level, within its organization structure. It has an independent sector training institution (Central Human Resource Development Unit-CHRDU) with full infrastructural facilities. RWSSFDB has limited human resources and inputs are procured by out sourcing. UNICEF, being a support organization, also has limited professional staff. DoLIDAR, has limited sector expertise since its involvement in the sector is a minor fraction among their local development activities in seven different fields. Water Aid Nepal, has also the limited sector expertise, it is mainly focusing on advocacy, research and documentation. NWSC has adequate human resource and expertise on system operation.
177. As a general comment, given the current roles and responsibilities of each agency, the DWSS, KUKL and NWSC found professionally capable human resource for WASH. All sector actors should, however, prepare and implement the human resource development plan.

### 5.1.3 User's input participation in planning, management and outsourcing

178. The bottom up planning process is not effectively implemented as schemes are often decided based on priorities of non-users.
179. Users' involvement is more concentrated on implementation but is limited in operation and maintenance. For example, 43 % of piped water supply schemes need urgent repair and maintenance.
180. There is a large gap of financial and managerial capacity among users' communities in emerging towns and rural settings. Instead of community volunteerism, service procurement or use of professional operators may need to be considered as an option. Small scale and scattered users' communities are not formally institutionalized (or legalized), though they are organized as users' association in local level. Their involvement in planning and management has to be increased.
181. In order to make the users' group more efficient and effective, regular capacity building inputs, post-handover financial and technical supports mechanisms need to be established. A time bound re-evaluation of functionality has to be conducted and provide support according to information based analysis.

## 5.2 Issues

182. **Distinctiveness of roles.** A sector generally works better when policy institutions do not implement, but have oversight over implementing institutions and receive reports showing how they are adhering to policies. Currently, the roles are mixed. Implementing agencies should be collaborating to ensure common mechanisms of implementation and common reporting. Greater clarification and separation of roles is required.
183. **Regulatory roles.** The urban sector has, to some degree, arranged for separation of regulatory and implementation roles. Improved regulatory separation is required in the rural sector.

184. **User's voice.** There is a need to increase capacity of user's and their involvement in planning and operation.
185. **Operation and maintenance.** This issue is explored further in Section 6, however, innovative mechanisms to improve rural and small system operation and maintenance should be considered.

### **5.3 Recommendations**

186. Obtain greater clarification on the separation of roles and responsibilities.
187. Aggregation between stakeholder groups. i.e. NGOs should be required to form a common accountable network so the government can liaise with a few parties and so build up greater coherency in the sector.
188. Local government performance needs to be benchmarked by some common criteria so at national level there is a clear understanding of which parties are the high performers and where the main problems are. Incentives need to be devised for weaker performers to improve their performance.
189. Standard contracts between Village water supply and local governments need to be established. Management powers can be delegated to communities, but they depend on performance. This will also enable District level to identify villages with weak local management for targeting of capacity strengthening initiatives
190. Explore and identify potential innovative mechanisms for repair and maintenance activities.

## 6. Functionality and Performance Monitoring

### Background

#### Sustainability and Functionality

191. Most sector actors emphasise new projects/schemes rather repair, maintenance, and rehabilitation. This results in reduced functionality – e.g., about half (43%) of the piped water projects/schemes are not in good functional condition.
192. As discussed in earlier sections, the existing policies (e.g. Strategic Action Plan 2004) which state that 'ensure that 20 % of budget allocated to rural water supply and sanitation should be spent for rehabilitation and repair' is not implemented.
193. The Urban Water Supply and Sanitation Policy 2009, also stresses cost recovery in operation and maintenance. The policy also further elaborates the arrangement of operation and maintenance (MPPW, 2009).
194. NMIP data indicates that about 38,000 piped water supply schemes have been constructed. The Position Paper of Functionality/Sustainability TWG (2010) illustrated that about half of the existing water supply schemes in the country are partly or totally defunct. Many schemes do not function up to their design capacity for their design period and do not serve all water users with Quantity, Accessibility, Reliability and Quality (QARQ) criteria.

**Table 6-1 Functional status of gravity water schemes**

<b>S N</b>	<b>Functional Status of gravity flow water supply schemes</b>	<b>No. of Schemes</b>	<b>Covered households</b>	<b>% Coverage</b>
1.	Well managed projects	7.734	373.295	18%
2.	Minor repaired required	16.935	809.996	39%
3.	Major repair required	4.375	246.481	12%
4.	To be rehabilitated	4.967	437.800	21%
5.	To be reconstructed	3.438	189.756	9%
6.	Projects not possible for re-operation	467	27.008	1%
7.	Others	15	530	0%
	Total	37.931	2.084.866	100%

Source: Functionality/Sustainability Thematic Working Group, 2010

### Monitoring

#### General

195. Key current sources of information for monitoring and evaluation are:
196. **NMIP:** Nationally representative information has been collected by the National Management Information Project (NMIP) survey (2010). The NMIP collected and disseminated information has been the extensive one and primarily focusing on water supply and sanitation coverage and functionality at the ward or scheme level information.
197. **Census, Survey and Impact Evaluation:** Every ten year Central Bureau of Statistics (CBS) conducts the household level population census, longitudinal situation can easily be compare regarding the overall well-being of the population by using the health improvement related to water borne and water related diseases such as cases of diarrhoea occurrence, typhoid, dysentery. The census can also be very useful information in order to measure the performance of the sector. Similarly,

the Demographic Health Survey (conducted every five year), impact evaluation of the projects and other health information is equally reliable source of information.

198. Annex 1-B shows a summary of the WASH sector targets and achievements since 1985.
199. Monitoring and evaluation is mostly confined to project level rather than sector performance. Projects generally use their own M&E system.
200. Various documents such as Periodic National Plans, Result Based Monitoring and Evaluation Directives 2067 (2010) of National Planning Commission (NPC), Rural Water Supply and Sanitation National Policy & Strategy – 2004, Urban Water Supply and Sanitation Policy- 2009 and several other organizations mention monitoring and evaluation to linked with the sector performance.
201. Recently MPPW launched a system of Web Based M&E system for rural water supply and sanitation. The M&E system is designed to seek quantitative information from NMIP and qualitative being gathered from various national surveys led by Central Bureau of Statistics and other credible institutions. The system has also developed CREAM indicators as sector performance indicators (see Table 6-2). The RWSS Sector Web Site ([www.rwash.gov.np](http://www.rwash.gov.np)) together with the Management Information System/Decision Support System (MIS/DSS) is housed in the newly developed National Information and Technology Centre in Singh Durbar.

**Table 6-2 Proposed CREAM Indicators**

SN	Proposed Nepal CREAM* Indicators for the Sector
1	Access: % of people/HH
A	served with treated water supply
B	served with improved Water Supply
2	Water Quality: No. of schemes comply NS No of schemes with benefiting population
3	Quantity of water: % of schemes comply min. NS
4	Functionality: No. of schemes functional. Ratio of actual supply to required supply hours.
5	Per capita investment cost
6	Equity:
A	Mean deviation from district average% of schemes in person per improved water service.
B	Reaching the un-reached
C	% of schemes addressing needs of all Marginalized groups
7	Sanitation: % of HH with access to improved sanitation
A	No. of VDC Declared Open Defecation Free (ODF)
B	No. of School with improved W/Supply facility
C	No. of school with toilet facilities
8	Gender
A	% of WUSC with female holding key positions
B	% of WUSCs with female representation as per regulation
9	Management: % of schemes with active WUSC /Boards/operators.

Note\*: CREAM: Clear, Reliable, Economic, Adequate and Measurable

## Issues

### Sustainability/Functionality

202. Key factors that limit sustainability are reliance on capital hand-outs from government and donors, institutional weaknesses, lack of attention to environmental impacts, weak operation and maintenance and inadequate investment in rehabilitation.

203. Management and sustainable operation of facilities and their usage is often disregarded and existing systems are often replaced by new facilities. These practices result in duplication of facilities and sub-optimum use of resources. They also do not achieve further commitment and accountability in the quality of services and issue of equity to the consumers. Although more than Rs 22 billion has been allocated to the sector in the past six years (2004-2010), utilization effectiveness is often questioned in the absence of structured monitoring mechanisms.
204. There is limited commitment regarding the quality, quantity, accessibility and reliability (QARQ) of services. Coverage figures do not reflect the real functional situation. There is also very little documentation to show the impacts brought about by interventions. As a possible consequence, the sector may start to lose its competitiveness in allocation of resources. Questions may arise, for example, on why more fund is necessary to support the water supply as water supply coverage has already reached by 80 percent.
205. Other issues are:
- Poor quality, collection, processing and validation of information.
  - The existing infrastructure is often not able to meet the increased community demands and aspirations.
  - Current practices do not reflect consumer demands (e.g. household connection). This reduces consumer satisfaction which affects ownership and sustainability.
  - The 'user pays' principle is not widely adopted for those with high demands, while those who rely on basic services still believe that operation & maintenance costs for sustained water services should be provided for free as the users already contributed during construction.
  - Earlier notions and assumptions of voluntary community management are changing and need to be addressed especially in rural areas.
  - Lack of adherence to minimum construction standards of infrastructure and regular repair, maintenance and replacement of spare parts.
  - Poor on-going management arrangements: Many schemes are constructed to suit water agency control operation. However, during and after construction many Water Users' and Sanitation Committees (WUSCs) do not receive adequate support for the required technical and managerial knowledge and skills.
  - Out dated approach to gender and equity issues.
206. Declining source reliability and reduced water availability, increasingly leading to conflicts about water rights and distribution within and between settlements and communities.

### **Monitoring**

207. No Updated Sector Assessment and Weak Monitoring Systems. The sector has initiated a data collection information system on coverage and functionality. However, periodic collection and sharing of data and has not been fully institutionalized due to unclear stakeholders' commitments and accountabilities.
208. There is no established information management system in many agencies working in the sector. Also there is no culture of recognizing of work of M&E institutions and professionals, neither is their performance being evaluated on the basis of their contribution and impact.
209. Whilst a sector monitoring unit is in place, the sector still lacks effective performance monitoring. Meanwhile it does not collect information related to water quality, service level, tariff system and hygiene.

210. There is a poor culture and practise of evidence based resource allocation and the sector has not yet utilized currently available sector information in annual planning process neither at district nor national levels. Furthermore, equity based resource allocation is another challenge to reach the un-reached.

## **Recommendations**

### 211. Sustainability/Functionality:

- Develop, finance and implement a mechanism for monitoring and post-construction support of existing water supply schemes and services,
- Ensure compliance with common standards for water supply services through the establishment of an independent and fully authorised regulatory body.
- Review and strengthen policies, guidelines, principles and standards from the perspective of sustained water supply services.
- Benchmark and monitor capacity and performance of stakeholders.
- Establish guidelines and tools for rational (evidence & information based) and transparent decision making to improve social inclusion in resource distribution.
- Examine the validity of the assumption of voluntary community management and professionalise Operation & Maintenance services.
- Ensure the timely and proper allocation, disbursement and utilisation of resources for water supply services (including rehabilitation) in accordance with government policy
- Invest in capacity building for quality and sustained water supply services as per the policy.
- Allocate a required fund with separate budget line for software components to ensure sustainable O&M of the rural schemes. In case of urban projects ensure fund for software activities for partial capital cost recovery as well.
- In order to address serious issue of functionality, review the existing guidelines (12 Vol) and develop a comprehensive directives outlining institutional mechanism with clear roles and responsibilities of water agencies, WUSCs, their federation and communities.

### 212. Monitoring and Evaluation:

- Establish mandatory provision of submission annual report by all state and non-state actors at district (DWSSCC- DDC/WSSDO) and at national level (M&E unit/NMIP) based on sector indicators (CREAM).
- Critically review and revise existing information collection system by incorporating key issues (water quality, service level/functionality, capital cost, tariff, etc.,) through formation of a committee led by government with the representation of concerned sector stakeholders. During this revision attempt to accommodate JMP indicators where possible.
- Strengthen and equip DWSSCC secretariat with authorities and adequate resources to enable collect, review/analyse and disseminate information regularly both horizontally and vertically.
- NMIP should move from a project to a permanent facility in which sector data is collated and analysed on a regular basis on standard criteria.
- The web-based data base and mobile to web operations need to be implemented and rolled out so that all agencies can load up information (with suitable quality checks).

## 7. Sanitation and Hygiene

### 7.1 Background

#### 7.1.1 Introduction

213. Sanitation and hygiene sub-sector deserves significant importance to the overall development of a country. However, its impact varies with cultural diversities, different economic strata and ecological variations.
214. Currently about 10,500 children under five are dying each year due to diarrheal diseases. Because of lack of adequate public awareness, priority in resource allocation; lack of harmonized and collective institutional efforts, the pace of progress in sanitation program in the country has remained slow and has been largely over shadowed by drinking water supply interventions.
215. There is a large disparity between rural and urban sanitation coverage. Low level of literacy and awareness, remoteness, socio-cultural factors, are also associated with low sanitation coverage.
216. Sanitation coverage has been gradually increasing. From 1990 to 2010, it increased from 6 % to 43 % (Table 7-1). More than 50 % of the districts are below then national sanitation coverage.

**Table 7-1 Trend of sanitation coverage**

Location	1990	1995	2000	2005	2009	2015 (MDG Target)	2017 (National Target)
Rural	3	18	25	30	37	52	100
Urban	34	67	80	81	78	67	100
National	6	22	30	39	43	53	100

Source: Sanitation and Hygiene Master Plan (Draft), 2010

**Table 7-2 Linkages between WASH and infant mortality in Nepal**

Development Region	Water access (coverage %)	Toilet access (coverage %)	Diarrhea among under-5s/1000	Infant mortality rate	Use of soap at any time	Frequency of hand washing
<b>EDR</b>	<b>76</b>	42	259	<b>45.00</b>	<b>67.50</b>	<b>2.20</b>
CDR	81	46	218	52.00	64.30	2.20
WDR	85	54	205	56.00	74.10	2.40
<b>MWDR</b>	<b>76</b>	31	260	<b>97.00</b>	<b>55.90</b>	<b>1.80</b>
FWDR	83	29	239	74.00	51.20	1.70

Source: Department of Water Supply and Sewerage (DWSS)/ Ministry of Physical Planning and works (MPPW), 2010, NDHS 2006

217. Lack of access to hygiene and sanitation has resulted in the occurrence of cholera and diarrheal epidemics which are more prominent in the MWDR and FWDR where around 346 people were killed in 2009 outbreaks.

#### 7.1.2 Implementation Approaches

218. Changes on knowledge, behaviour and practice are the major focuses of sanitation and hygiene interventions. Currently, sanitation is being promoted under a total sanitation concept and approaches. This includes: Community Led Total Sanitation (CLTS), School Led Total Sanitation (SLTS), Community Led Total Behaviour Change in Hygiene and Sanitation (CLTBCHS), Sanitation Revolving Loan Fund (SRLF), Details are mentioned in the Position Paper of Sanitation and Hygiene TWG. These approaches focus on achieving open defecation free (ODF) status through installation of latrines in the communities, schools and other public places

followed by total hygiene behaviour change including proper hand washing with soap, improved personal hygiene, safe water handling and improved environmental sanitation. Emerging issues are related to menstrual hygiene, climate change, diarrheal epidemics, natural disasters, etc., are gradually affecting the life of the people across the country.

219. The Government in 2009/10 allocated NRs.200 million budget with a separate budget line indicates its further commitment to improve sanitation status of the country.
220. The Sanitation and Hygiene Master Plan emphasises the need for an uniform approach for sanitation and hygiene programming and financing.

### 7.1.3 Disaster/Emergency

221. During a disaster/emergency, multiple coordination platforms (e.g., DWSSCC and DDMC, SSG vs NDMC, Clusters) are operational without clear understanding and roles and responsibilities among the state and non-state actors. This has created confusion, duplication of roles and poor humanitarian preparedness and response in the event of major disasters. The cross cutting sub theme WASH in emergency has discussed and quickly identified key issues and suggested few recommendations (see Annex 9-C)

### 7.1.4 SACOSAN IV

222. The Government of Nepal has most recently made regional commitments to further improve sanitation in Nepal.
223. Annex 7-A summaries the implementation status of the post-SACOSAN III activities.

## 7.2 Issues

224. **Resource allocation.** Although a separate budget line for sanitation and hygiene promotion has been initiated from 2009/10, it does not comply with the provision of 10% (of the rural water supply budget) resource allocation as indicated in the policy document 2004. Budget allocation has not been well linked with the sector information and visioning for MDG and universal coverage.
225. **Multi sectoral & inter-sectoral collaboration.** Weak and fragmented planning and programming [target setting] among the inter (MPPW- DWSS & Fund board) and intra ministerial (MLD, MOHP and MOE) agencies and lack of strategic guidance/directives for private sector participation. In addition, various implementation modalities, approaches and priority setting criteria are other parameters hindering sanitation and hygiene promotion.
226. **Poor attention on prevention.** Promotion of the sub-sector is often overlooked by the technology driven water and sanitation interventions, and the preventive aspects are overlooked by curative aspects in the WASH and health sector.
227. **Gender and Social Inclusion.** The NMIP report revealed that sector has not fully complied the policy provision (11.3% vs 30 or 50%) women/ gender participation while implementing of hygiene and sanitation programme in the districts. There is not yet clear evidence and practices for registration of sanitation committees and ensuring participation of women, people with disability, people living with HIV/AIDS, conflict affected people, marginalized and disadvantaged people in the sanitation promotion initiatives.
228. **Coherent Implementation of the Master Plan.**
  - Compliance of sector agencies for collaborative, consistence and harmonised implementation with reasonable resource allocation and participation at all levels.

- Activation and reinforcement of coordination mechanisms at all level
- Media strategy and documentation of ODF villages;
- Lack of ODF and post ODF strategy, systematic monitoring mechanism and activities for sustainability of total sanitation movement;

229. **Others.** There are several issues to be addressed while implementing the master plan which includes:

- Lack of strategy to promote: recycle, reduce, replace, refuse, and reuse of solid/ liquid waste
- No harmonized and adequate efforts put in place to conduct scientific and operational research in sanitation/hygiene promotion/practice, sanitation marketing, etc.
- The increasing scattered and haphazard trend of urbanisation is an additional challenge for ensuring basic sanitation and hygiene services among the most deprived families settled in municipalities, small and emerging towns including slum and informal settlements.
- Inadequate response mechanisms and resources during WASH related outbreaks.

### 7.3 Recommendations

230. In order to achieve MDG and universal coverage, the master plan should be the guiding document for evidence based joint planning with subsequent resource allocation is a must. In this process ensure basic services particularly for both rural and urban under privileged and families settled in scattered urban formal and informal slums. Enforce and immediately implement coordination mechanisms (at all levels) envisaged in the master plan. While executing this new coordination provision, avoid confusion on existing coordination (e.g., DWSSCC, NWSSCC vs D-WASH, R-WASH, M/V-WASH) indicated in the policy document.
231. Formulate joint coherent annual plan in line with the master plan, execute and ensure unified financing mechanisms among the concerned state and non-state agencies at all levels.
232. Develop and execute pre and post –ODF strategy, users friendly and sustainable WASH facility at household and institutional levels, common monitoring indicators, operational research and documentation mechanism for sustaining the Total Sanitation Movement.
233. Integrate hygiene promotion as an essential and integral component of multi sector (WASH, education, health) intervention regardless of geographic, socio-economic and cultural settings of the communities and districts.
234. Promote private sector involvement for solid and liquid waste management, sanitation promotion in slum/rural areas through policy directives, regulatory mechanism and strengthened institutions.
235. Strengthen and harmonise national and district level coordination mechanism and resource allocation in case of disaster.

## 8. Water Quality

### 8.1 Background

236. Water supply coverage has been substantially improved and currently stands at 80 percent. As stated in Nepal demographic health survey (NDHS-2006), only 15.3% households are practicing household water treatment methods before drinking. However, more than 2 in 5 households in urban areas treat water prior to drinking water. In rural areas only 10 % HH practicing the same.
237. Few government led urban projects (KUKL, NWSC, and DWSS) have been providing drinking water through centralized treatment system covering approximately 3.5 million peoples. However, reliability of the supplied water is not consistent and fully complies with Nepal Dinking Water Standard. Some additional initiatives have been taken to improve water quality through implementation of water safety plan and establishment of laboratories.
238. Many of these improved or so-called 'safe' water sources may be contaminated through seepage of raw water or wastewater around the outlet, at the source, or in transmission. This is the main reason why incidences of diarrheal diseases have not decreased significantly even though accessibility to improved water supply coverage increased.
239. The need to focus on the quality of water supply is becoming more important and very urgent. In recognition of this, the GoN promulgated the "National Drinking Water Quality Standards (NDWQS)" and implementation Directives in 2005/06 in an effort to take first step towards assuring safe drinking water and improved health status of Nepali people.
240. In order to implement this standard in a coherent and coordinated fashion, the MPPW formed the National Drinking Water Quality Steering Committee (NDWQSC) in 2008 comprising of governmental, I/NGOs and UN agencies representation.
241. Small sample surveys and investigations carried out by many agencies in different parts of Nepal have provided some trends. These revealed the water reaching at the household were found to be contaminated with *E-Coli*. For example, the survey of 28 municipalities/ urban towns reported (ENPHO, 2009) that over 80 percent of samples from the urban areas had *E-coli* present. Of the 174 water sources, 68.9 % were found to have microbial risks. In addition, 64.8 % reservoirs and 58.6 % of taps were also highly contaminated. In addition to microbial tests, several other chemical parameters (iron, manganese, cadmium, ammonia, nitrate, chloride, total hardness, sulphate, fluoride, arsenic, chromium, copper, zinc, mercury and aluminum) were tested and did not meet the National standard.
242. Another survey conducted by ENPHO on behalf of JICA/MPPW in 2007 concluded that over 33% of tube wells- deep(56) and 44% shallow tub wells (total 160) were found contaminated with Coliforms in the Kathmandu valley.
243. The blanket arsenic survey conducted by DWSS confirmed that 1.7% tube wells had exceeded Nepal permissible limits of 50 ppb.

### 8.2 Issues

#### 8.2.1 Enforcement of NDWQS-2005/06

244. GoN/MPPW had approved the NDWQS in 2005/06 and issued the notice of implementation of NDWQS-2005 under the provision of Water Resource Act, 1992 and provided implementation guideline in two phases. However, the provisions indicated in the Standard have not been implemented in urban areas. With regards

to rural areas, the preparation quite behind the expected target mentioned in the Implementation Directives.

245. The majority of district water and sanitation agencies (NWSC, WSSDO/ WSSSDOs/ DTOs/DDCs, and Management Boards) and local operators are poorly equipped with technical know-how and lack basic water quality testing tools and equipment. The operational status of water testing laboratories located at different areas are not fully functional.

#### **8.2.2 Coordination and Collaboration among WQ Institutions/Stakeholders**

The existing coordination platform (NDWSSCC) has not able to coordinate with all stakeholders working in the sector due to weak commitment of the members. This has hampered to collect water quality related interventions and results and develop a concrete plan to executive the directives of the standard. At district level, the existing coordination body (DWSSCC) has not taken as priority component and coordinate with the agencies working in the water quality. .

246. Although blanket testing on arsenic contamination was completed in 2008 with 1.7 % shallow tube wells (approximate 35,000 hh) exceeding the Nepal standard, over 30% hh have not yet received temporary solution. Meanwhile no concrete plan has been developed to provide permanent safe water options to vulnerable families.

#### **8.2.3 Water Quality Status of Private Water Points**

247. Following the completion of blanket arsenic testing in 2008, 80-85% of hand pumps installed by individual households do not have platforms to protect ground water from external contamination. This result need to be seen in the context that more than 40 percent of the population reside in 20 Tarai districts. The potential impact on human health is clearly very high and may invite serious epidemic.

#### **8.2.4 Poor Knowledge of Consumers on Safe Water**

248. A Baseline/Consumer Survey conducted jointly by DWSS/UNICEF in 2005 in four districts (Panchthar, Parsa, Kapilbastu and Dang) revealed that around 75 percent of the households mentioned that they do not have any problem with the water from their current sources with respect to the quality for drinking purposes. People equate water quality with 'clear appearance and odorlessness' as good quality of water, but did not know the quality parameter of safe water. Due to this misperception people are drinking contaminated water and it is being one of the reasons for increased diarrhoea epidemic/outbreak across the country. WQ Monitoring and Surveillance System.
249. The National Drinking Water Standard has outlined very clearly that "Water Suppliers" are responsible for quality monitoring. It indicates parameters, frequency of monitoring, sampling, testing for urban and rural water projects. Water quality surveillance is the responsibility of MoHP. However, majority of health institutions at national and district levels are not familiar with responsibilities, nor have capacity to deliver surveillance assignments. Recently, with support from WaterAid, MoHP has formulated draft guidelines for water quality which yet to be finalized and executed.

### **8.3 Recommendations**

250. It is recommended that:
- (i) The Water Quality (WQ) Steering Committee, in consultation with key players, should develop comprehensive mass media advocacy tools kits to improve knowledge of the public in both urban and rural areas on safe water by end 2011
  - (ii) Enforce and comply standard directives by all WASH agencies. If needed, revise existing implementation directives in light with current water quality improvement

scenario appropriate for both urban and rural settings. Water quality sub- sector should develop should start developing a standard conventional/new treatment design, drawing and cost estimate and incorporate it into the existing Water Supply Guidelines-12 Volume. Subsequently, a comprehensive capacity building/skill upgrading package/training module on WQ and organise systematic training to all sector players. Master Trainers should be developed and attached with Central human resource Unit (CHRDU) and other training institutes/academic institutions;

- (iii) The GoN concerned ministries should provide legal guideline and directives to operate and sustain the existing water laboratories. MPPW should endorse Water Safety Plan (WSP) as a first fundamental intervention for improving WQ of the existing/new water supply system (system/point of source) and the Steering Committee should develop an action plan for rolling out WSPs in a phased manner throughout the country.
- (iv) In case of urban projects implemented by DWSS, NWSC, KUKL, UEIP/DUDBC, municipalities, and other stakeholders, MPPW should advise immediately to develop and implement Water Safety Plan and provide WQ information as indicated in the Nepal Standard.
- (v) Review existing coordination platform established for water quality promotion and formalize its clear term of reference with accountability.
- (vi) Establish a clear and workable mechanism to collect and analyse water quality data and information and develop subsequent sharing provision with MoHP for surveillance purpose.
- (vii) All sector actors should compulsorily carry out feasibility study (financial/technical) for installation of permanent water treatment (WT) facilities in arsenic prone areas and develop regular monitoring of installed temporary arsenic mitigation options until permanent systems are in place.
- (viii) During the rainy season and disease outbreaks, all sector agencies along with other development and humanitarian agencies should jointly promote Point of Use (PoU) water treatment options to ensure access to safe water.

## 9. Cross-Cutting Theme

### 9.1 Joint Field Visit Program

251. This report of the First Joint Sector Review (JSR) of the WASH sector has mainly relied on secondary information. The JSR aims to provide a common platform for all the sector actors to discuss and plan sector interventions jointly, which can be reflected at least at the district level planning process.
252. The present reality is that the sector is characterized by fragmentation, duplication, double counting due to uncoordinated activity among various actors in this sector. Given the situation, in order to substantiate the secondary information, prior to the first JSR, a five day Joint Field Visit Program was organized in different locations covering from Mechi to Mahakali Zones of Nepal. The Four Joint Field Visit Team represented by government agencies, civil society organizations, UN agencies and I/NGOs working in the sector. The field visits shed light on the grass-root reality in the sector especially on the implementation modality, status, strength, bottlenecks and community expectations for project cycle processes. The broader objective of the field visit was to capture the field reality and learning from. The specific objectives were as follows:
- Establish joint working culture and sharing experiences among the sector actors
  - Capture information on key learning related to: planning, implementation, joint monitoring and evaluation
  - Gather key information on bottlenecks of sector program execution
  - Compile information on key expectation of communities and essential support from the sector agencies, local bodies and civil society
  - The reports of the Four Teams have provided a good insight of the field reality (See detailed in Annex 9- A).

### 9.2 Cross Cutting Sub-Themes

253. Position Papers of the Five Thematic Groups are instrumental in the process of preparing the First JSR report. In addition to the Joint Field Visit program, during the preparation of the report, the need to include crossing cutting sub themes was clearly felt. Three sub-themes: i) Gender Equity and Social Inclusion, ii) Monitoring and Evaluation, and iii) WASH in Emergency, were subsequently formed by the representation of those professional who are actively involved in these respective sub-themes.
254. These sub-themes are built-into the relevant sections of the report - GESI is inbuilt in the GESI section (Annex 2-B), Monitoring and Evaluation is included in the chapter of 'Sustainability/Functionality and Performance Monitoring'. Key issues and recommendations of cross-cutting sub-theme 'Emergency' is placed in various sections of this report. All these sub-themes have emphasized key issues and recommendations. Further detailed of sub-themes; Monitoring and Evaluation, and Wash in Emergency are attached in Annex 9- B and 9-C respectively.

## 10 Conclusions and Recommendations for Coming Year

255. To be re-drafted during JSR
256. **Sector Coordination** – Formalizing a specific, accountable coordination structure at national and district levels. Set up a national executive management to operationalize and give leadership to the SSG. The district sector coordination body should be chaired by the LDO with a member secretary to operationalize and track achievement of actions and to communicate between levels. Support agencies should be integrated into these structures. All sector agencies should resolve to work through these coordinating structures.
257. **Institutional Arrangements** – Provide clarity on specific accountabilities including agreement on which, and when, powers are decentralized. Provide clarity on how the Fund Board activities and operations by other agencies become integrated into one district-lead sector program.
258. **Financial Arrangements** – Reach agreement that all agencies report on sector finance to enable oversight on financial performance. Implement a mechanism to secure compliance to a common financing policy by all sector agencies. Rural tariffs should cover the cost of operations and replacement and encourage household connections Investigate and agree on a strategy to increase financial allocations and improve cost-efficiency.
- Functionality** - Develop and implement cost-effective and scalable post-construction support mechanism and professionalise O&M services. Prioritise rehabilitation of existing infrastructure. Incorporate functional status and service levels of existing water supply schemes in M&E system.
259. **Sanitation and Hygiene** – Increase the priority of redressing the low sanitation coverage figures. Provide a strategic focus to eliminating open defecation in Nepal and increase attention to post-construction support to ensure that basic facilities meet minimum standards. Agencies should adopt a common approach to sanitation and hygiene behavior change.
260. **Water Quality** – All agencies should begin complying to national standards in developing new and rehabilitated services with increasing efforts to implement water safety plans.
261. **Performance Monitoring** – Reach agreement on development and use of NMIP as the primary sector data source. Incorporate monitoring the functional status of systems with existing monitoring systems. Improve dissemination of monitoring reports.
262. **Sector Assessment** – The sector should embark on a detailed sector assessment to address gaps in knowledge identified in the Sector Status Report. The Sector Assessment should be conducted by internationally trusted consultants with strong local partners. The sector assessment should look closely at the Country Status Overview methodology to see if this could be incorporated into sector assessment methodology.

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