

'Good Practices' related to access to Safe Drinking Water and Sanitation in the Lao PDR

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Mekong River Basin

Upper Mekong Basin (UMB)

- China
- Myanmar

Lower Mekong Basin (LMB)

- Laos
- Thailand
- Cambodia
- Viet Nam

Country description

China

Myanmar

Lao PDR is a land-linked country, and shares border with China, Vietnam, Cambodia, Thailand and Myanmar.

Total area : 236,800 km²

Population: 5.62 mill

Density : 24 p/sqkm

17 provinces including Vientiane Capital

Capita income USD 800 /c/y (2009) and target for 2020 about USD 1200 /c/y

Total fertility rate: 4.9%,

Crude birth rates: 41%

Crude death rates: 16%,

Vietnam

Thailand

Cambodia





Adult literacy rate: (F: 50%; M:74%)

Population growth rate: 2.5% per year

Life expectancy: 61 years (F: 63; M: 59)

Population leaving in rural area: 72.8%



Country description

47 ethnic groups, covering
120 ethnic sub-groups and languages

11,000+ small villages and mostly
with poor road access

Agriculture = 80% of jobs, mostly
subsistence farming in remote areas



OVERALL OBJECTIVES OF WSS PROGRAMME

- **To improve both quantity and quality of new and existing water supply and sanitation facilities.**
- **To improve and increase health and hygiene education in selected remote villages and schools**
- **To improve community based participation, management and maintenance of water supply and sanitation facilities**
- **To improve the standard of living for urban and rural population and ethnic minorities and the rural poor**
- **To give practical emphasis to gender issues at all levels of water and sanitation planning, provision and management**

Normative criteria in WASH Good Practices

Criteria 1: Availability:

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- **The level of service depend on the provision for water and sanitation technology options and hygiene promotion interventions. The water public tap and water points shall be located near their households with grouping geographic conditions by following the need assesment and water facilities designed.**
- **The number of sanitation facilities were provided through the individual household and families living in and the locations must be not too far away and in case of schools water supply and latrines the children utilized day to day during their learning time and close to the school building.**



Criteria 2: Accessibility:

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- Sanitation and water facilities provided to people are physically for everyone, or in the immediate vicinity due to the proper plan beforehand. In the community dialogue process, there is one step taken to identify and mapping the village including the very poor households, older people, disable people, widow people in order to preliminary plan to distribute the water pipe connection or to place the water tap stand where became accessible for them to use .
- The location to drill water boreholes, dug wells, tap stand, public water tank were identified and unanimous decision by villagers on where to put, not located in the individual fencing, should be in public land, school, market, temple, village authority office and in case of private land the agreement shall be noted.



Criteria 3: Affordability

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- **Actually the water and sanitation provisions to target remote people were subsidized by the donors to development partners, it does mean that the view of affordability to the projects are in place due to their contribution had split to labour work and local materials such as wood, latrines shelters, gravel, sand etc. some issue of villagers or government cash contribution need to contributed where gravel and sand are not available in the area or it was provided by donors instead by villagers.**
- **The monthly collection fee was collected by the village water and sanitation committee (WATSAN Committee) in order to keep maintaining the small repairing, water tariff, electricity bill, incentive for volunteer craft man to monitor the water system functioning with the regular cleaning activities by villagers for example at the water intake site and surrounding drainage system. In case of big repair needed, they shall request to concerned government agency to check and solve with their contribution. The water hand pumps spare parts are kept with WATSAN Committee while the pumps did not work they could fix themselves with simple replacement.**



Criteria 4: Quality and Safety

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- **The water and sanitation facilities technique chosen had shown their good capacity to serve people in the village and children in school. Having said that, the water and sanitation design and model selected was from time to time developed and improved to the good techniques quality; therefore, leading to the good quality of construction and service delivery with friendly use by villagers and children. There were no harmful water poisoning; by the way the attention for the water quality testing need to be taken to avoid diseases contamination and negative environmental impact.**
- **The local village rules to manage the water and sanitation facilities are in place with full enforcement and strict measurement to people against the rules such as illegal connection pipe, cut and burn the pipe. The hygiene and health promotion had been in place regularly to disseminate on how to keep clean especially for the three clean campaign including individual and personal hygiene by using soap and ashes for hand washing after using latrines and before eating as well as the safe and clean food consumption.**



Criteria 5: Acceptability

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- **First thing first, the sufficient water quantity gave the rational requirement for the families and households; the idea for having water system for the consumption indicated the achievement of reaching the daily basic need as their usual expectations. The water supply technology options respond to the acceptability either for individual hygiene practices or drinking purposes such as distribution pipe system to tap stand post by gravity fed system, boreholes with hand pumps installation, protected dug wells, rain water catchment which all included in the annual work plan activities. The private cleaning could be done inside the toilet and bathing room or rounding with safety fence.**
- **In several areas, the drinking water quality was done by boiling even with some preferred herb and distinction colour, chlorination, filtration. The chlorination might create some concern for smelling if not properly handle. Sometime the water tasting from the deep boreholes still ignored by the villagers due to iron concentration and other total dissolved solids. The potential risk from arsenic contamination remained the issues that need to be solved and prepared to preventive guideline and measurement. The level of investment have shown to an appropriate water scheme and sanitation technology in comparison to the upgraded technology with high investment leading to more convenient to use facilities but required ability to operation and maintenance.**



Cross-cutting criteria:

Criteria 6: Non-discrimination

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- **The water and sanitation systems had been provided by following the local authority plan that submitted to the central; it did mean the planned activities had been identified and prioritized already by district and province based on the poor remote areas, any supporter is in place, less opportunity, minorities groups, evacuation groups, resettlements groups, development areas and other. The government, international development partners, the non government organizations have played the main roles to identify need and resources for intervention and provision of appropriate water and sanitation schemes for those people; they were asking only for some contribution such as labour work, local materials such as sand, gravel, wood and some few case for the cash contribution.**
- **The villagers were all participated in the planning process as to aware and agree to the interventions that will be occurred in their communities; before and after the construction the additional activities were in place such as the hygiene and health promotion activities and some distribution on WASH's information, education and communication materials as well as the local training for health volunteers and village water and sanitation committee are in place in order for them to be able to operate and manage themselves the water and sanitation schemes provided. The issue of gender equality and minorities policy had been included and disseminated in several meetings and workshops. The persons living with HIV/AIDS or affected by other health conditions such as leprosy village still access to water and sanitation support. The mitigation intervention had been implemented as well during the natural disaster such as seasonal inundation.**



Criteria 7: Participation

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- **Whatever the introduction and assist from the technician, government staff, project adviser and stakeholders might bring into people full participation by following the field methodology steps, starting from demand assessment, community dialogue, agreement, planning, procurement, contribution, construction and monitoring. They are all eager to involve in the process hoping to have facilities which will be benefited for the living conditions. They spent their time, labour, in kind and in cash to contribute with the project when their believes and trust are in place.**
- **The construction phase took place for a week, a month or more but still be high priority for them to complete their contributions. They developed themselves local rules to protect their schemes, water source, forest uptake, water intake, tap stand, water quality and spare parts that need to replaced and improved their water schemes. The training on operation and maintenance, good hygiene practices to volunteers, teachers were organized to fill the gaps and properly manage their water and sanitation schemes.**



Criteria 8: Accountability

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- **At central level the government and donors are closely worked out and allocated fund according to the budget line addressed in the annual work plan; the funding authorization and certificate of expenditures forms are all accountable and acceptable by the planners, implementers, monitors, auditors in consultation with local government including communities levels. The full financial report sets should be finalized and properly documented. The project contractor and implementer should follow the specific agreement which had been approved officially by concerned stakeholders; the technical supervision was regularly made according to the agreement phase dealing mostly by local government staff and finally take into account while the hand over ceremony was taking place and the water and sanitation schemes will fall under the roles of communities.**
- **The procurement system was followed the government guidelines with full participation by some donors such as the Bank, ADB, UN agencies etc..In case of emergency, the response was made by purchasing locally the required facilities, some stock supplies and equipments in order to help and mitigate the victims from natural disasters. The funding authorization and certificate of expenditures were kept at the accountant and cashier office in order to document and present during the annual auditor by the donors agencies and by the government audit department; similarly with procurement system, all documents related to supplies and equipment, bidding ceremony process, transportation to the target areas, approved on receiving goods by local authorities were all documented.**



Criteria 9: Impact of the practice

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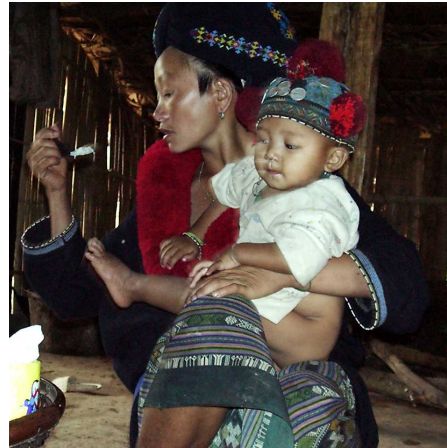
- **Based on the mid year and annual review meeting, the impact from the implementation by following the annual work plan was identified and come up with the result based practices leading to the remark whether completion, on going or postpone to next year plan.**
- **The laws and regulations were in place; the dissemination workshop was carried out in order for all implementers level sound to be aware and based on. The campaigns and subsidies were parallel introduced; the past tradition to support poor remote areas, ethnic minorities communities, mountainous and hard to reach areas to provide water and sanitation schemes need to have subsidies to stimulate the involvement and contribution from villagers;**
- **In some cases more and regular campaigns still necessary for the government and development partners staff spent and dedicated themselves through hygiene education, health education, hygiene practicing, cerebation on world water day, sanitation year, global washing hand day and other related campaigns to mass media which was good opportunities for leaders to launch and motivate people on clean water, hygiene and sanitation activities.**
- **People benefited from those provisions without discrimination and to keep the track of human rights as well as to empower people roles and responsibilities where attached to their daily lives and importantly they have the right to protect and upgrade their facilities for long term use to all their ancestors.**



Criteria 10: Sustainability

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- The sustainability was expected to be the key points of all steps project preparation. If refer to the project cycle, starting from the project identification to need assessment, planning step to community dialogue and with firm agreement, the procurement for supplies and equipment that linked to the level of investment on technology whether appropriate with low cost or high cost technology, the monitoring and evaluation were in place and conducted regularly, the community self reliance to collect monthly fee contribution to have for small repairing and incentive according to the local rules to maintain the water and sanitation schemes.
- The water and sanitation became all the property of the communities including facilities in primary school that need strong contribution from parent association in collaboration with school teachers and children.
- The government and development agencies still further plan to backstop and support for soft ware promotion especially to intervene for hygiene education and strengthening the capacity of village water and sanitation committee. On the other hand while communities income raised, the water and sanitation schemes could be improved and upgraded for more convenient, sufficient both quantity and quality.
- The water quality surveillance and testing will be based on the previous and current study and improvement such as we have the drinking water quality guideline with focusing on thirteen parameters that need to be testing.
- The training was done for all provinces for water quality testing and the community based water quality monitoring was carried out by using simple reagents and doable with low cost.
- The household water treatment and safe storage method were introduced such as chlorination, boiling, filtration to ceramic and bio sand filter container, solar water disinfection.
- The institutional and legislation framework would be improved and strengthened with suitable enforcement and measurement. The good annual work plan would be the indicators to foreseen and bind with all performance involved in the project cycle.



Challenges in WASH

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- Still remain 47 poorest districts that need to be supported to achieve the MDGs; located in the remote, mountainous and hard to reach areas; could not access easily during the rainy season;
- The affordable contribution level by communities limited due to the poverty condition and level of hygiene behaviour awareness ;
- Lack of strengthening capacity for water and sanitation committee;
- Education sector shall design for toilet construction with suitable number of latrines when the school building are planned;
- Insufficient offices building for water and sanitation sector at all level with skills, experiences, knowledgeable and qualified staff;
- Supplies, equipments and vehicle are in place for supervision, monitoring and monitoring interventions;
- Lack of regular monitoring and hygiene promotion plan to grass root level due to capacity and resources;
- Lack of proper water quality monitoring system;
- Climate change leading to emerging new diseases and natural disaster;
- Mining exploration might affect and contaminate surface and ground water



Challenges in WASH

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- Shortage of raw water in the dry season;
- Deforestation and land cleaning is leading to reduced spring flow, higher run-off and increased turbidity in streams;
- Water supply and Sanitation services in remote areas are requiring higher investment due to difficult access;
- Lack of local capacity and financial resources to operate and maintain water supply and sanitation systems;
- Understanding Demand Responsive Approach takes time;
- External Support Agencies need to come on board with Lao RWSS Sector Strategy;
- Efforts to develop local capacities need to be continued;
- How to scale-up, especially to reach the MDGs Goals in 2015 ?
- How to meet the necessary financial support and human resource development?
- Insufficient hygiene education in connection with the communities and school sanitation components
- Arsenic Contamination of Drinking Water Sources;
- Lack of continued financial support to the rural water supply sector.



Context: access to sanitation in Lao PDR

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Population using sanitary means of excreta disposal (%)				
	<i>Multiple Indicator Cluster Survey, 2006, Lao PDR</i>	<i>Target</i>		
	2006	2015	2020	
Rural	38.8 (road access) 15.8 (no road access)	60	70	
Urban	83.5	88	90	
Total	44.8	70	80	



Context: access to improved water source in Lao PDR

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Access to improved source of drinking water (%)			
	<i>Multiple Indicators Cluster Survey, 2006, Lao PDR</i>	<i>Target</i>	
	2006	2015	2020
Rural	49.6 (road access) 35.0 (no road access)	70	80
Urban	70.4	88	90
Total	51.5	80	90

MICS, 2006: distribution used of improved water sources:

- Other unimproved 6.2%
- Piped into dwelling, yard or plot 8.9%
- Public tap/standpipe 9.6%
- Protected well or spring 10.0%
- Bottled water 11.2%
- Tubewell/borehole 11.7%
- Surface water 15.3%
- Unprotected well or spring 27.0%

Lessons learned

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- Improve National RWSS Strategy including Master Plan
 - Focusing rural areas particularly remote and ethnic minority groups
 - Strengthening water, sanitation, hygiene promotion and household water treatment and safe storage
 - Improving monitoring/evaluation systems
 - Improving water quality



- Continued technical and financial support for the rural water supply and sanitation sector which is fundamental for the achievement of the MDG sector target;
- Interventions in water and environmental sanitation require sufficient time to see the desired changes, in particular, behaviour change to improve individual hygiene practices;
- Financial and technical assistance to enable the expansion of water supply and sanitation services to the most vulnerable and remote areas;
- Development of a medium/long term water supply and sanitation investment plan for rural and small towns areas;
- Establishment of an appropriate regulatory framework for private sector participation in the development of the water supply and sanitation sector;
- Information, Education and Communication (IEC) is the most important tools in creating demand for clean water and hygienic latrines;
- Continued institutional strengthening and capacity building at local level;
- Establishment of a national water and sanitation sector monitoring system to improve the data collection and processing for better planning and sector co-ordination.
- Development of a community based water quality monitoring system to ensure quality water supply to both rural and urban population.

Longer term strategy

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- Strengthen inter-agency coordination and information sharing
- Application Rural Water Supply and Sanitation Sector Strategy into the field practice
- Improve water and sanitation and extend hygiene promotion
 - Train primary school teachers on use of health and hygiene tool kits
 - Strengthening staff capacity at all level and train WATSAN committee
 - To achieve hygiene behavior change
- Continue improving access to safe water and sanitation
 - Resources available
 - Government and communities contribution with the support from International Development Partners and INGOs.

Thank you for your attention

