

TERMS OF REFERENCE:

ENVIRONMENTAL TECHNICAL ADVISER TO DFID-INDIA

OBJECTIVE

To provide technical advice on the environment and infrastructure components for all or some of the following DFID supported projects :

- A) Sarva Shiksha Abhiyan Programme (Elementary Education Programme) (SSA)
- B) Rashtriya Madhyamik Shiksha Abhiyan (Secondary Education Programme) (RMSA)
- C) Bihar Sector Wide Approach to Strengthening Health (SWASTH)
- D) Bihar Support Programme for Urban Reforms (SPUR)

SSA

Key Tasks

Through the provision of high quality technical advice to DFID and its SSA partners, *to accelerate the strengthening of MHRD and State/local partners' capacity to assess, plan and implement environmentally-sound approaches* to the provisioning and maintenance of school facilities.

This will involve delivering practical and policy-relevant support to help address the following issues in SSA:

- Environmental safeguards
- Impacts of slow-onset and/or rapid environmental change to school facilities, including those attributable to climate-variability and extreme weather events
- Scaling up of good practice, including through the use of the SSA Innovation Fund.
- Environmental management capacity amongst partner institutions.
- Any other issues identified as appropriate by SSA partners on aspects relating to the quality and sustainability of school build.

Detailed issues associated with the environmental, health and safety of school facilities are included in the endnoteⁱ of these TORs.

Key outputs

This will include but not be limited to:

Substantial progress, documented in key reports, to the civil works and environmental recommendations of the 11th Joint Review Mission of the SSA.

Briefing note, and other appropriate support for Development Partners' team ahead of the Joint Review Mission in July.

Lead role in reviewing the civil works and environmental components under in the Joint Review Mission in July.

RMSA

Key tasks

Through the provision of high quality technical advice to DFID and its partners, *to accelerate the strengthening of MHRD and State/local partners' capacity to assess, plan and implement environmentally-sound approaches* to the provisioning and maintenance of school facilities.

Key outputs

The Consultant will work with the DFID team and others to provide support to identify and appraise environment, health & safety and infrastructure issues in RMSA. The consultant will provide technical inputs in the preparation, appraisal and design process, including lead on the drafting of the environmental and civil works components of key DFID project documentation.

SWASTH

Key Tasks

To provide technical advice and guidance to DFID and its partners on the environmental components of the SWASTH project.

To ensure that the Strategic Environmental Assessment (SEA) conducted by SWASTH partners is of a high quality and addresses the key environmental concerns in SWASTH. The SEA will investigate the issues scoped in this DFID Environmental Screening Note (ESN) in detail and make recommendations for their successful handling.

Key outputs

- Quality assure draft terms of reference prepared by project consultants to undertake SEA in close consultation with DFID supported Technical Assistance Support Team (BTAST)
- Participate in briefing of consultants and guide them through the process.
- Quality assure the draft SEA report.
- Other written products guiding DFID and its partners on environmental issues across the health sector in Bihar, as reasonably requested by DFID.

SPUR

Key Tasks

To quality assure the follow-up, by DFID supported Urban Technical Assistance Support Team (UTAST) and Government of Bihar, of the environmental risks and opportunities identified in the Environmental Screening Note (ESN).

Quality assurance will be required, but not be limited to, (i) integrated environment, climate change, and disaster management plans for ULBs (ii) embedding environment/climate change sensitiveness in the ULB building code, bye-laws and plans.

Key outputs

- Quality assure environmental baseline report that will be prepared by the UTAST.
- Other written products guiding DFID and its partners on environmental issues across the urban sector in Bihar, as reasonably requested by DFID.

SKILLS AND EXPERIENCE

11. The consultant will have a postgraduate or recognised professional qualification in environmental management, environmental engineering or a related subject.

S/he will have:

- Substantial, relevant and recent policy and practical experience of environmental assessment methods and techniques in a variety of climatic zones, in the education or other basic services sectors in India/South Asia.
- Recent experience of developing or implementing evidence-based measures relating to environmental safeguards and other environmental issues (e.g disaster risk management) at substantial scale for infrastructure services. This should capture best practice on public sector environmental management systems, preferably in the education or other basic services sectors in India/South Asia.
- Broad and deep professional understanding of global and Indian experiences, including best practice, in:
 - Environmental assessment methods and techniques for large-scale and geographically widespread construction activities.
 - Public and private sector-led environmental management systems for safely operating and maintaining infrastructure services.
 - Strengthening environmental management capacity in public sector institutions for both regional (inter-State) and local environmental goods
 - Planning for and mitigating climate and non-climate related disasters such as flooding; cyclones; drought and earthquakes.
 - Water resource management and service delivery: especially declining groundwater tables and increased degradation of water quality.
 - Environmental health including water, sanitation and hygiene (WASH) and air quality in both rural and urban locations.
 - Environmental awareness-raising for young adults in schools and in the community.

REPORTING REQUIREMENTS AND WORKING ARRANGEMENTS

The consultant will prepare a status report within the first month of the assignment, including a work plan for the remaining 8 months of the assignment. The workplan will clearly set out priorities for engagement in each of the relevant DFID projects.

Thereafter the consultant will prepare a monthly progress report. The penultimate monthly report will need to capture both progress and recommendations for how DFID should continue to work with partners on environmental issues.

The consultant will work from a hot-desk in the DFID New Delhi office.

The consultant will report to the DFID Senior Infrastructure and Environment Adviser (Ashufta Alam)

The will work closely with key partners at the national and State level – there is a requirement for travel within India, particularly to Bihar.

Time

The consultant will provide up to 5 days a week for 9 months

BACKGROUND- SSA

1. DFID is contributing to the second phase of pooled funding with the World Bank and European Commission to Government of India's national programme for universal elementary education, the Sarva Shiksha Abhiyan.

2. SSA is a centrally-sponsored programme to provide eight years of elementary education of satisfactory quality to all children up to the age of fourteen. It is designed to operate in a large federal system in which the states are primarily responsible for providing and financing elementary education with guidance and support from the Union government. It builds on extensive previous education service experience in India, and has a particular focus on service provision to marginalised and vulnerable groups, including girls from scheduled castes and tribes. It is a major commitment by Gol to reaching the education MDGs and supports the 86th amendment to the Constitution of India, making free and compulsory education to children of the 6-14 years age group a fundamental right. SSA guarantees, inter alia, a primary school within one kilometre of every habitation, a 1:40

teacher: pupil ratio, improvements in education quality through adequate learning materials, and teacher training and support. The first phase of support to SSA (hereafter referred as SSA-I) concluded in December 2006. The second phase of support to SSA (hereafter referred as SSA-II) is for the 2006-2011 period.

3. Launched in 2000-01, the SSA is now in 8th year of effective implementation. All the 35 States and Union Territories of the country are presently covered. Since 2001 SSA has built 250 000 school buildings, including water and sanitation facilities for girls and boys.

4. DFID is currently responding to a Gol request for additional funding to help Gol stay on track with its education sector ambitions. Nearly a third of future spend is likely to be on school facilities (new schools and/or additional classrooms).

5. We have identified climate-related vulnerability of school buildings as a growing threat with a potentially high impact on DFID's past investment in SSA (£330 million since 2003/4) and in future. We are in discussion with the Gol and the World Bank about strengthening environmental management systems and will deploy additional resources to monitor the resilience of school build to withstand current and future environmental changes.

BACKGROUND - RMSA

The Government of India (Gol) launched a \$4 billion scheme to expand secondary education (14-16 years) in August. Secondary schooling is the weakest link in India's education system – and probably the single biggest cause of gender inequality in Indian society. About 50% of young Indians get a chance to continue their schooling after the age of 14, mostly boys from urban areas. But this average masks huge geographical differences: in Bihar, India's poorest state, one in five young people participate in secondary schooling. West Bengal, another DFID focus state has 125 government secondary schools for its population of 80 million. Three of India's poorest and most populous states – Uttar Pradesh, Madhya Pradesh and Rajasthan have a gap of 20 percentage points between girls' and boys' enrolment.

The United Progress Alliance (UPA) Government has made education and labour-force skills the top priorities for its second term. *Rashtriya Madhyamik Shiksha Abiyhan* (RMSA or the National Secondary Education Campaign) will be India's first significant investment in secondary schooling since Independence. The desire to strengthen the coverage and quality of secondary schooling is due to at least three factors. Firstly, soaring demand as India reaches near universal elementary schooling. Secondly, the need for a more sophisticated

and skilled workforce to fuel economic growth, particularly in the service sectors. Finally, the social imperative of turning India's largest ever youth population into productive citizens.

RMSA aims for 100% gross enrolment by 2017. In the next five years, Gol plans to open 11,000 new secondary schools and expand infrastructure in a further 44,000; roll out a range of incentives to get girls into secondary school; appoint over 90,000 new teachers and overhaul the entire teacher education and examination system.

Like SSA, RMSA will work in all 35 State and Union Territories but target investment in the 'lagging' states, to bring them up to all-India levels. Thus Bihar with a population of 83 million, a literacy rate of 48%, entrenched social exclusion and gender inequality will receive approximately 13 times more assistance than Kerala, with its population of 32 million, literacy rate of 91%, where 92% of its youth is already enrolled in secondary and girls outnumber boys.

RMSA concentrates initially on government schools only. However, the majority of secondary enrolments (60%) are actually in Government grant-in-aid and private schools. Gol has therefore agreed to run an Innovations Component in parallel with RMSA, aimed at broadening Public Private Partnerships (PPP) and testing new approaches to improving education quality.

BACKGROUND- SWASTH

The Sector Wide Approach to Strengthening Health (SWASTH) aims to improve the health and nutritional status of people of Bihar, particularly the poorest people and excluded. The goal of the programme is "to improve the health and nutritional status of people in Bihar, particularly the poorest and excluded", and thereby accelerate the state's progress towards the Millennium Development Goals (MDGs). The programme purpose is "increased use of quality, essential health, nutrition, water and sanitation services especially by poorest people and excluded groups". SWASTH is based on the premise that health and nutrition are two facets of the same coin, while good health is the ultimate objective of nutrition; nutrition is the vital component of health. It further, takes into account water and sanitation as a key determinant of health and nutrition status and how improving water quality is as important as improving water supply and the relative importance of water treatment at point of use. SWASTH will play a catalyst role in supporting Government of Bihar in its ongoing interventions to address comprehensive health, nutrition and watsan reforms in the state.

SWASTH will deliver five mutually reinforcing outputs: (i) Increased scale and functionality of nutrition, health and water and sanitation services, particularly in under-served areas; (ii) Community level processes established to manage, demand and monitor services; (iii) Systems strengthened for improving efficiency and effectiveness; (iv) Capacity to work with non-government actors enhanced; (v) Quality and use of monitoring and evaluation systems improved.

The environmental risks of SWASTH are explained in the attached Environmental Screening Note (ESN). Given the scale of possible impacts at the local and State-wide level; the weak capacity of partners; and the absence of existing environmental management systems within the lead departments, it is recommended that a Strategic Environmental Assessment exercise is completed within the first 9 months of the project start date. The SEA will investigate the issues scoped in this ESN in detail and make recommendations for their successful handling. The project logframe will be modified to capture and track progress of key SEA recommendations.

BACKGROUND-SPUR

The purpose of Support Programme for Urban reforms (SPUR) is “Identified Urban Local Bodies’s (ULBs) ability to provide urban services and attract private investment significantly enhanced”. The project covers 28 towns with total population of 6.3 million forming over 65 % of total urban population in state of Bihar. It is expected that these 28 towns shall become hubs of economic activities and attract people from proximate lesser economically developed urban areas, not covered by the project, for seeking livelihood opportunities.

SPUR will deliver five mutually reinforcing outputs: (i) Effective Policies and stronger institutions to promote and manage urban development in place; (ii) State and ULBs mobilise significantly increased resources for urban development and manage them more effectively;(iii) Identified ULBs plan, implement and manage urban infrastructure and services more effectively;(iv) Increased municipal capacity to attract private investment in urban areas.; (v) Empowered poor communities and socially excluded groups access increased urban resources and livelihood opportunities.

The primary environmental impacts of SPUR relate to provision of improved urban services especially solid waste management, sewerage and drainage, leading to improved health of the urban poor. Certain issues which need consideration during the design and implementation of

the project will be dust emissions, increased noise levels , over extraction and contamination of groundwater, degradation of land/soil and over utilization of resources during the construction phase, contamination of water sources due to lack of sanitation at workers camp site and occupational hazards to the workers.

Bihar is most prone to climate variability and disaster events (floods, drought and seismic hazards). Integrated disaster, climate and environmental risk assessments will need to be carried out to identify vulnerable areas and communities, and to enhance climate change adaptation capacity in the municipal areas. This will be supported by improved environmental conditions; better management of urban environment due to ULB capacity building programs and increased participation of community in the protection of environment.

ⁱ Environmental, health and safety issues:

- (a) Siting/location of the school
- (b) Planning and Lay-out of the campus (including orientation of buildings; internal circulation arrangements)
- (c) Structural safety aspects (application and adherence to building codes; condition of buildings)
- (d) Building Design (building lay-out; space for various activities; materials used)
- (e) Class room design (space availability; natural light and ventilation; display arrangements)
- (f) Measures for Disaster Risk Management
- (g) Resilience of school facilities to current and future climate variability (including as it relates to Disaster Risk Management.
- (h) Facilities for Physically Challenged
- (i) Water management in the school (drinking water arrangements; its usage for other purposes; water supply sources and quality)
- (j) Drinking water arrangements
- (k) Drainage arrangements
- (l) Sanitation arrangements and its condition
- (m) Energy use and management
- (n) Waste management (collection and disposal)
- (o) Exposure to pollution particularly dust, toxic fumes, contaminated water and noise.
- (p) Fire and Electrical Safety Practices
- (q) First aid and emergency response arrangements
- (r) Over-all operation and maintenance aspects (housekeeping; cleanliness and hygiene)