

ADDITIONAL INFORMATION TO PROGRAM SAFEGUARD SYSTEMS ASSESSMENT

ENVIRONMENTAL AND SOCIAL MANAGEMENT FRAMEWORK

A. Introduction

1. The Additional Skill Acquisition Program (ASAP) has been designed by the Department of Higher Education (DOHE) and the Department of General Education of the Government of Kerala to complement post-basic education—higher secondary (grades 11 and 12) and undergraduate college—with market-driven vocational training and career counseling to make it more employment-oriented. The proposed Asian Development Bank (ADB) loan will reinforce ASAP's efforts to provide the disadvantaged youth of Kerala, enrolled in government and government-aided schools and colleges, with the opportunity to improve their English communication, and basic information technology and soft skills, and to gain proficiency in vocational skills that are in demand in the high-growth service sector and emerging technology areas. By providing additional skills and career counseling, ASAP will enhance the employability of Kerala's youth and make the students market-ready by the time they graduate. The DOHE is the executing agency for the proposed loan. The ASAP secretariat has been constituted as the implementing agency under DOHE by Government Order no. 15/2009/LBR dated 7 July 2012.

2. The impact of the proposed loan will be increased employment of Kerala's youth (aged 15–24 years). The outcome will be increased employability of ASAP certificate holders. This will be achieved through the following outputs:

- (i) Output 1: Market-relevant vocational training introduced in post-basic education.
- (ii) Output 2: Access to quality vocational training enhanced.
- (iii) Output 3: Increased awareness and private sector participation facilitated.
- (iv) Output 4: Improved program management and monitoring and evaluation.

3. Output 2 will enhance access to good quality vocational training by supporting construction of 35 community skills parks (CSPs) and renovating 30 skill development centers (SDCs) across Kerala.¹ Since the proposed assistance is structured as a results-based loan, it will follow the policy objectives and principles enshrined in ADB's Safeguard Policy Statement (SPS) (2009). However, for actual policy delivery process and operational procedures, the proposed loan will follow India and Kerala's own rules, regulations, and implementation mechanisms for environment and social safeguards. Gaps, if any, with respect to ADB's SPS (2009), will be addressed suitably through this environmental and social management framework (ESMF). It will help DOHE and the ASAP secretariat in following country systems while undertaking the civil works, and adhering to due environmental and social safeguards so that the policy objectives and principles enshrined in ADB's SPS (2009) are fulfilled.²

4. DOHE and the ASAP secretariat have assured ADB that construction of CSPs will take place entirely within the premises of government departments. No new land will be acquired. No one will be displaced in anticipation of the proposed ADB loan. The proposed loan is therefore, categorized as C for involuntary resettlement and B for environment in line with the SPS (2009). Since indigenous people constitute only 1% of Kerala's population and will not be affected by the civil works, the categorization is C for indigenous people.

¹ SDCs are government buildings which are to be renovated into training centers.

² The assessment was discussed with key stakeholders. Its draft and final version are disclosed in ADB's website.

5. The ESMF is structured as follows:

- (i) objectives of the ESMF (Section B);
- (ii) anticipated environment and social impacts of the proposed civil works, and scope of safeguards under ASAP (Section C);
- (iii) overview of ADB's environment and social safeguards policy [SPS (2009)] and key points of relevance to ASAP (Sections D and E);
- (iv) institutional capacity to address safeguards (Section F);
- (v) overview of India's rules, regulations, and implementation processes pertaining to environment (Annex 1);
- (vi) overview of India's rules, regulations, and implementation processes pertaining to social safeguards (Annex 2);
- (vii) comparison of India/Kerala's environment safeguards with ADB's SPS (2009) (Annex 3);
- (viii) comparison of India/Kerala's social safeguards with ADB's SPS (2009) (Annex 4);
- (ix) ADB's list of prohibited investment activities (Annex 5);
- (x) outline of an environmental audit/due diligence report (Annex 6);
- (xi) environmental management plan (EMP) (Annex 7);
- (xii) handling, transportation, and use of asbestos (Annex 8);
- (xiii) environmental safeguard requirements in contracts (Annex 9);
- (xiv) EMP compliance reporting (Annex 10);
- (xv) national ambient air quality standards (Annex 11);
- (xvi) general standards for effluents (Annex 12); and
- (xvii) national ambient noise level standards (Annex 13).

B. Objectives of the Environmental and Social Management Framework

6. The ESMF aims at assisting the DOHE (executing agency) and the ASAP secretariat (implementing agency) in identifying adverse environmental and social impacts upfront, and implementing the required safeguards. Specifically, the ESMF seeks to:

- (i) Establish clear procedures and methodologies for environmental planning, review, approval, and implementation of subprojects (i.e., construction of CSPs and renovation of SDCs).
- (ii) Establish clear procedures for review, approval, and implementation of social issues to preclude involuntary resettlement and any adverse impact on indigenous people.
- (iii) Provide practical guidance for planning, designing, and implementing environmental and social safeguard measures.
- (iv) Specify appropriate roles and responsibilities to staff within the ASAP secretariat, and outline necessary reporting procedures for managing, monitoring environmental and social concerns at the subproject level.
- (v) Determine institutional arrangements, including those related to training, capacity building, and technical assistance required to successfully implement the provisions of the ESMF.

7. The application and implementation of the ESMF will therefore:

- (i) Support the integration of environmental and social aspects into decision-making processes at all stages of the project cycle by identifying, avoiding, and/or minimizing adverse environmental and social impacts at an early stage.
- (ii) Promote sustainable environmental and social outcomes through improved planning, design, and implementation of sub-activities.
- (iii) Minimize environmental degradation as a result of either individual subprojects or through their indirect, induced, and cumulative effects.
- (iv) Protect human health.
- (v) Minimize possible adverse impact on cultural property.

8. The ESMF is based on the Government of India's Environmental (Protection) Act, 1986 and rules and notifications provided therein for environmental protection. In terms of social safeguards, the ESMF draws on the (i) National Rehabilitation and Resettlement Policy, 2007; (ii) Right to Fair Compensation in Land Acquisition, Rehabilitation, and Resettlement Act, 2013; and (iii) Forest Rights Act, 2006. These legal instruments provide guidelines and directions for (i) screening of projects, (ii) their categorization into 'A' and 'B', (iii) scoping their environmental and social impacts, (iv) formulation of terms of references for environmental assessments, (v) obtaining environmental clearances, and (vi) environmental compliance monitoring during project construction and operation phases. The ESMF also incorporates some best practices from ADB's SPS (2009) to plug potential gaps and strengthen adherence to the national/state level environmental safeguard requirements further.

9. The ESMF therefore:

- (i) Outlines best practices in safeguards policy implementation, which will be applied to the project.
- (ii) Provides a categorization system to screen potential environmental and involuntary resettlement issues, and its potential impacts on indigenous peoples.
- (iii) Helps to identify subprojects with potential and significant adverse environmental impacts.
- (iv) Helps to examine whether the mitigation of environmental impacts and risks meet the requirements of environmental laws and regulations of the Government of India and Government of Kerala.
- (v) Creates awareness among DOHE, ASAP secretariat, associated technical institutions, and participating local government agencies about ASAPS's safeguard requirements.
- (vi) Guides the implementing agency to conduct meaningful consultations with all subproject stakeholders.

- (vii) Guides ASAP safeguard personnel to prepare and monitor the implementation of initial environmental examinations (IEEs) and EMPs.
- (viii) Guides the ASAP secretariat personnel to disclose information related to environmental issues to all stakeholders.
- (ix) Outlines institutional arrangements for implementing safeguard planning instruments, monitoring, reporting; and undertaking corrective action as required.
- (x) Strengthens institutional capacity for safeguards compliance among the ASAP secretariat, affiliated institutions, local government agencies, and among all associated contractors in the project.

C. Scope of Safeguards in the Additional Skill Acquisition Program

10. Under the proposed loan, the ASAP secretariat proposes to construct CSPs on unencumbered government land sites. Where feasible, it also proposes to upgrade and remodel existing government buildings into SDCs. The sites for CSPs are being finalized by DOHE and the ASAP secretariat. The civil works for constructing new CSPs and renovating existing SDCs will trigger environmental safeguard issues and procedures of the Government of Kerala. Potential environmental impact of construction and refurbishment activities are site-specific and relatively minor. Adverse environmental impact or risk, if any, can be adequately addressed through mitigation measures. No construction activity will take place in a critical habitat or in an environmentally sensitive area. Any activity, which is likely to generate any irreversible and major environmental impact, will be excluded from ASAP.

11. All the potential sites for CSP will be screened by the ASAP secretariat. Any site that triggers involuntary resettlement will be avoided. If construction activities are likely to have any adverse impacts on non-titled persons such as squatters, encroachers, and indigenous peoples, or on temporary land users such as sharecroppers, leaseholders, agricultural laborers, vendors, and shepherds, DOHE will not use such land for CSP development. Moreover, if DOHE/ASAP, or any other government agency, has already removed such persons from its own lands where ASAP activities will take place in anticipation of ADB support, the ASAP secretariat will not use such land for refurbishment or construction activities of CSPs.

12. The DOHE may get land from other departments or ministries for the construction and development of CSPs, but it needs to ensure that such land is not likely to have any adverse impact on non-titled persons such as squatters, encroachers, and indigenous peoples, or on temporary land users such as sharecroppers, leaseholders, agricultural laborers, vendors, and shepherds. The DOHE/ASAP secretariat will screen all such transfers of state land or land belonging to other ministries to confirm that they are free of encumbrances before it takes possession. Further, a formal land transfer to DOHE needs to be concluded before construction activities are initiated.

13. No CSP-related refurbishments or construction activity will lead to the acquisition of any land, permanently or temporarily, from a person, household, business establishment or from a community. Moreover, no CSP refurbishment or construction activity will restrict any person's land use or access to legally-designated parks or protected areas. No wetlands, reserved, or protected forest lands will be acquired for or used in CSP activities. The refurbishment of existing buildings or construction of new buildings for CSPs will not block or affect any person's assets, access to assets, income sources, or means of livelihoods.

14. No CSP-related activity will have any adverse impact on indigenous peoples or impede their cultural and human rights. No CSP activity will be carried out on land owned by indigenous people or land they claim as their ancestral property. CSP activities will not restrict their access to protected areas and use of natural resources. CSP activities will not physically or economically displace indigenous people. The project will not undertake any activities, which leads to commercial development of their cultural resources and knowledge.

D. Asian Development Bank's Environmental Safeguard Policy Principles

15. The environmental safeguard policy principles of ADB are embodied in the SPS (2009). It applies to all projects supported by ADB. The SPS aims to (i) help avoid adverse impacts on the environment and on affected people/communities; (ii) minimize, mitigate and/or compensate for adverse project impacts, if unavoidable; (iii) help borrowers to strengthen their safeguard systems; and (iv) to develop their capacity in managing the environmental and social risks.

16. The ADB's SPS principles are:

- (i) Use a screening process for each project as early as possible to determine its potential impacts and appropriate environmental assessment.
- (ii) Conduct environmental assessment for each proposed project to identify potential direct, indirect, cumulative, and induced impacts and risks.
- (iii) Examine alternatives to the project's location, design, technology, and components, and their potential environmental impacts.
- (iv) Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts. Prepare an EMP to address potential adverse impacts.
- (v) Conduct meaningful consultation at the early stage of project preparation that continues during implementation in an atmosphere free of intimidation or coercion, gender inclusive and responsive, and tailored to the needs of disadvantaged or vulnerable groups. Establish a grievance redress mechanism (GRM) to address complaints and conflict resolution.
- (vi) Disclose draft environmental assessment including the EMP in a timely manner before project appraisal in an accessible place and in a form understandable to affected persons and other stakeholders. Disclose final environmental assessment, EMP, and their updates to all stakeholders.
- (vii) Implement the EMP and monitor its effectiveness.
- (viii) Do not implement project activities in areas of critical habitats unless:
 - a. there are no measurable adverse impacts on the critical habitat that could impair its ability to function;
 - b. there is no reduction in the population of any recognized endangered or critically endangered species; and

- c. any lesser impacts are mitigated. If a project is located within a legally protected area, implement additional programs to promote and enhance the conservation aims of the protected area.
- (ix) In an area of natural habitats, there must be no significant conversion or degradation, unless:
 - a. alternatives are not available;
 - b. the overall benefits from the project substantially outweigh the environmental costs; and
 - c. any conversion or degradation is appropriately mitigated. Use a precautionary approach to the use, development, and management of renewable natural resources.
- (x) Apply pollution prevention and control technologies and practices consistent with international good practices.
- (xi) Provide workers with safe and healthy working conditions and prevent accidents, injuries, and disease.
- (xii) Conserve physical cultural resources, and avoid destroying or damaging them by using field-based surveys that employ qualified and experienced experts during environmental assessment.

17. The civil works under the proposed loan is likely to trigger the following environment safeguard policy principles: i, ii, iii, iv, v, vi, vii, ix, and x.

1. Compatibility between National Environmental Policy and Regulatory Framework and Environmental Safeguard Principles of the Safeguard Policy Statement

18. The level of compatibility between ADB's SPS principles and environmental policy and regulatory framework is discussed below (please see Annex 3 for further details).

19. The National Environmental Policy, 2006 of the Government of India is comprehensive and addresses all relevant aspects of environment protection, environmental sustainability, and enforcement. The policy matches the SPS principles. The Environmental (Protection) Act, 1986 and Rules and Notifications included in this Act have sufficiently transformed the policy into a satisfactory environmental regulatory framework. Further, other parallel Acts, such as the Forest (Conservation) Act, 1980, The Water (Prevention and Control of Pollution) Act, 1974, and The Air (Prevention and Control of Pollution) Act, 1986 ensure effective implementation of policy principles for minimization of pollution.

20. The Government of India's environmental assessment and clearance process is, in principle, consistent with ADB's environmental assessment processes and public disclosure requirements. Environmental impact assessments (EIAs) for development projects under Category 'A' and 'B1' projects are similar to ADB's screening, categorization, assessment, and clearance/approval systems.

21. Since the proposed civil works under ASAP are relatively minor and there will not be any significant adverse environmental impact, the project does not need to obtain any environmental clearances. However, safeguard documents (e.g., IEE) has to be prepared to mitigate any environmental risk that might arise during construction and operations. However, although local environmental assessment systems applicable to ASAP subprojects is similar to the environmental assessment procedures outlined in the SPS, these subprojects would need to follow the ESMF's environmental assessment guidelines for site selection, due diligence, design, consultation, disclosure, and monitoring and evaluation. This will be done to ensure that ASAP subprojects comply with both national and ADB's environmental safeguard requirements.

22. The implementation of the EMP for a subproject will be monitored by an environment and social safeguard consultant/staff to be appointed by the ASAP secretariat. Since subprojects are not expected to obtain environmental clearance from the Kerala State Pollution Control Board (KSPCB), they will not be monitored by it or by the Kerala Department of Environment. The only permission to be obtained is for felling of trees at some of the potential CSP sites, if required. Such permission will be obtained by the project in the pre-construction phase.

23. The ASAP subprojects will not attract provisions of EIA Notification, 2006 (with latest amendments) which calls for public hearing as part of environmental clearance process. In this public hearing, project affected persons (PAPs) and other stakeholders can view the project details through documents made available in various government offices and express their comments and suggestions for incorporation in the project design. These public hearings help to explain the main features of the project to stakeholders, including PAPs. This drawback shall be overcome by following the public consultation and participation and disclosure procedures of ESMF which direct to conduct meaningful consultations with all stakeholders including PAPs (though unlikely in ASAP). Such consultations will be conducted as required starting from project planning through implementation and monitoring. The views, comments, and suggestions of all stakeholders will be recorded and considered in the project implementation.

24. As per the regulatory framework of India, the ASAP subprojects will not need to undertake an EIA, neither will they be required to prepare an EMP. This might mean that few minor environmental impacts will be unattended. To this end, ADB's SPS take a much wider view of environmental impacts by taking the area of influence of a project as the area of study. Therefore, making it mandatory for the subprojects to screen, categorize, and prepare IEEs and EMPs. With guidance of the ESMF, all the subprojects shall consider the area of influence encompassing: (i) primary subproject sites; (ii) related facilities that ASAP develops and/or controls such as access roads, borrow pits, and disposal areas; (iii) 'associated' facilities that are not funded as part of a subproject, but whose viability and existence depend exclusively on the subproject; and (iv) whose goods and services are essential for the successful operation of the subproject.

25. The national or local environmental regulatory framework does not prescribe a due diligence or environmental audit to check existing facilities at subproject site(s) to determine whether they could cause, or is causing, environmental risks and impacts. However, ADB's SPS principles require an environmental due diligence or audit even in such circumstances. If the subproject does not foresee any major expansion except refurbishment of existing buildings and facilities, the due diligence or environmental audit constitutes the environmental assessment for the subproject.

2. Environmental Assessment and Approval Process of Subprojects of the Additional Skill Acquisition Program

a. Screening and Categorization of Potential Environmental Impacts

26. During the identification of CSP sites, screening will be done following the procedures outlined below. Depending on the nature of environmental impacts, each of the subprojects will be categorized in one of three categories (A/B/C).

- (i) **Category A.** The subproject is likely to have significant adverse environmental impacts that are irreversible, diverse, or unprecedented, and may affect an area larger than the sites or facilities subject to physical works. **This category of subprojects will be excluded from the proposed ADB assistance.**
- (ii) **Category B.** The subproject is likely to have less adverse environmental impacts than those classified as Category A. Such impacts are site-specific, mostly reversible, and, in most cases, it is possible to come up with mitigation measures more readily than in Category A projects. **An IEE and an EMP are required for Category B projects.**
- (iii) **Category C.** The subproject is likely to have minimal or no adverse environmental impacts. No environmental assessment is required although environmental implications of the subproject need to be reviewed.

b. Consultation and Participation

27. The implementing agency will conduct meaningful consultations with all stakeholders who are directly or indirectly affected, if required. For this purpose, the implementing agency will prepare a consultation plan with PAPs and other stakeholders. The proceedings and outcomes of these consultations will be recorded. For the IEEs, the safeguard expert will, with the support of participants, summarize the manner in which consultations were conducted, key topics discussed, and the decisions arrived at. These decisions will be incorporated into the IEEs and EMPs. Photographic records and signatures of participants will be recorded in the IEE report. Consultations will be conducted in an atmosphere which is conducive to the development of the subprojects and beneficial to the PAPs. The implementing agency will ensure that the consultations are free of coercion and intimidation, gender-inclusive, and tailored to the needs of disadvantaged and vulnerable groups.

c. Guidelines for the Preparation of Initial Environmental Evaluations

28. The following are the main steps in the formulation of an IEE for a subproject with potential environmental impacts. Site-specific issues and the significance of these issues will ascertain the degree of scale, sensitivity, and magnitude of the environmental impacts. Any activity listed in the List of Prohibited Activities (Annex 5) will be excluded, as these will not qualify for ADB support.

29. Similarly, a generic EMP should be prepared; if, there are however any site-specific issues, these may be included in this EMP:

- (i) An executive summary describes the subproject features, key environmental

issues and impacts, EMP budget, and significant findings and recommendations.

- (ii) A chapter on policy, legal, and administrative framework describing applicable environmental policies, laws, regulations, and ADB's safeguard policies that are likely to be triggered by the subproject. (IEE could refer to ESMF without having to reiterate environmental policies and the regulatory framework).
- (iii) Analysis of alternatives is a key component of an IEE. In the project, most of the CSP sites have been finalized and an informed consensus has been reached as to the suitability of the sites in terms of safeguard issues. Therefore, there may not be a need to consider alternative sites. However, the implementing agency could consider alternatives to the proposed technology, design, and operations in terms of potential environmental impacts, the feasibility of mitigating these impacts, and the capital and recurrent costs.
- (iv) Description of the subproject, e.g., the major components such as refurbishment of existing buildings or the construction of new buildings and facilities.
- (v) The IEE will be based on current information including an accurate project description, and will include appropriate environmental and social baseline data. Desk reviews, discussions with project personnel, field visits, and interviews with people in subproject areas will provide required data and information. Environmental and social baseline data may be collected from secondary sources.
- (vi) Based on the baseline data collected and findings from field visits, the environmental safeguard specialist will identify potential impacts of the subprojects on physical, biological, socioeconomic, and physical cultural resources. These will be summarized and presented in the IEE. The impacts of the subprojects at the pre-construction, construction, and operations stage will be assessed.
- (vii) The potential environmental impacts and risks will be reviewed keeping in mind all applicable laws and regulations and ADB's environmental safeguard policy. It will be helpful to prepare a matrix as part of the IEE to indicate what laws and regulations, and ADB's environmental safeguard policies are triggered by the potential environmental impacts of the subproject.
- (viii) A subproject's environmental impacts and risks will be analyzed in the context of the subproject's area of influence. This includes primary project sites and related facilities, associated facilities, areas, and communities who might be affected by the cumulative impacts from the planned development of the subprojects. These impacts and risks will also be analyzed by taking into consideration physical areas and communities that might be impacted by unplanned but predictable development of the subprojects. These impacts and risks will be analyzed throughout the project cycle.
- (ix) When a particular subproject involves the use/re-use of existing facilities and infrastructure, the environmental specialist will perform an environmental audit or due diligence exercise to determine the existence of any environmental risks or impacts. If the subproject does not foresee any new major expansion, but only

refurbishment of existing buildings and facilities, the audit or the due diligence report will constitute the environmental assessment of the subproject. (See Annex 6 for an outline of an environmental audit/due diligence report outline.)

- (x) The IEE will be used to elaborate on the consultation process undertaken and will attempt to disclose subproject information to all stakeholders concerned. The IEE will summarize comments and concerns received from PAPs, how these are being addressed, and how special attention is being paid to addressing the needs and concerns of vulnerable groups, including women and the poor. It will also outline how further consultations with stakeholders will be conducted during subproject implementation.
- (xi) IEE will outline the GRM for each subproject with potential environmental impacts. The mechanism or framework will detail ex-officio members of the GRM, the guidelines for hearing complaints, the process of GRM, timeframe for hearing public grievances, decision making, and budget.
- (xii) A detailed EMP (see section below for details).
- (xiii) A short summary and conclusion drawn from the assessment with key recommendations.

d. Guidelines for Preparing Environmental Management Plans

30. Having identified potentially adverse environmental impacts, the next step is the preparation of appropriate measures to eliminate, reduce, or offset these. This is done through the formulation of an EMP, which is a vital part of any IEE. An EMP provides a link between predicted impacts and mitigation measures put in place to address them. ADB's environmental safeguard policy principles state that a detailed EMP is essential for Category A projects but for Category B projects like this one, a simplified EMP would suffice. While there are no standard formats for EMPs, its format should fit into the subproject's requirements. EMPs will be prepared taking into account comments and recommendations from all subproject stakeholders. In preparing an EMP, the following key areas will be addressed by the executing/implementing agency (see Annex 7 for an EMP format).

31. An EMP clearly indicates different phases of a subproject's physical activities. For each phase, it includes: (i) proposed mitigation measures against adverse environmental impacts and risks, (ii) institutional arrangements to deliver them, (iii) capacity development and training measures, (iv) implementation schedule, (v) cost estimates, (vi) environmental monitoring indicators, and (vii) reporting requirements. The EMP will define expected and measurable outcomes and will include performance indicators or targets that can be tracked over a period of time.

32. **Description of mitigation measures.** Feasible and cost effective measures to minimize environmental risks are specified with reference to each of the impacts identified during project preparation. The EMP will also provide details on conditions under which these mitigation measures will be implemented (e.g., the EMP will indicate the type of solution proposed [structural and nonstructural]) and the phase in which it should become operational.

33. **Monitoring program.** The EMP will contain an environmental performance monitoring system. It will ensure that the proposed mitigation measures will have the intended results and

will comply with national environmental standards and ADB's SPS policy. The monitoring program will have the following components:

- (i) monitoring indicators for evaluating the performance of each mitigation measure;
- (ii) monitoring mechanisms and methodologies;
- (iii) monitoring frequency;
- (iv) monitoring locations;
- (v) safeguard compliance reporting; and
- (vi) budget.

34. Guidelines on the types of information required for monitoring the effectiveness of mitigation measures, how to obtain this information, and how to provide feedback will be highlighted in the EMP.

35. **Institutional arrangements.** The EMP will clearly state the institutions responsible for implementing mitigation measures and for monitoring their performance. Often, more than one agency will conduct the monitoring of subproject activities. To this end, a mechanism for institutional coordination will be established. Each agency will be notified of its specific terms of reference.

36. **Implementing schedules.** Timing, frequency, and duration of implementing mitigation measures will be linked to the overall implementation schedule of the subproject.

37. **Reporting procedures.** Feedback mechanisms to inform relevant agencies and institutions on the progress and effectiveness of mitigation measures will be specified in the EMP.

38. **Cost estimates and sources of fund.** Implementation of mitigation measures outlined in the EMP will involve an initial investment cost as well as recurrent costs. The EMP should include cost estimates for each mitigating measure and also identify sources of funding.

39. **Other specifications in the environmental management plan.** To avoid illegal extraction of resources required for construction, EMPs of subprojects will include clauses to ensure that sand, clay, stone, dust, and timber are obtained from authorized locations and sources that are licensed by relevant Government of India and Kerala authorities. All building construction and refurbishment will adhere to current building and other applicable Codes of Practice issued by the Bureau of Indian Standards for the country and Kerala. Reference to these standards will be included in the contract documents. Necessary codes shall be followed for building design. An indicative list has been given in the table below:

National Building Code of India, 2005

NBC 2005	National Building Code of India, 2005
IS: 6313	Code of practice for anti-termite measures in buildings: IS: 6313 (Part I)-1971 Part I Constructional measures IS: 6313 (Part II)-1971 Part II Pre-constructional chemical treatment measures IS: 6313 (Part III)-1971 Part III Treatment for existing buildings
IS: 3792-1978	Guide for heat insulation of non-industrial buildings (first revision)
IS: 1634-1973	Code of practice for design and construction of wood stairs in houses (first version)
IS: 4838	Anthropometrics dimensions for school children: IS: 4838 (Part I) - 1969 Part I Age group 5 to 11 years IS: 4838 (Part II) - 1969 Part II Age group 12 to 16 years
IS: 4963-1968	Recommendations for buildings and facilities for the physically handicapped.

Source: Asian Development Bank.

40. All necessary permissions and no objection certificates, such as from the Fire Department, local municipal authorities, and Panchayats shall be obtained before the start of the operations. In addition, the contractor will address the following issues under the EMP:

- (i) electromagnetic radiation: issues such as location of telecommunication towers, and the consequences of permitting such towers to be built on top of college buildings or other buildings near H/T cables etc.;
- (ii) handling, transportation, and use of asbestos (see Annex 8);
- (iii) noise pollution during construction activities;
- (iv) preservation of culturally significant buildings;
- (v) ecological issues at construction sites;
- (vi) transport and access to construction sites;
- (vii) appearance of buildings and sites (aesthetics);
- (viii) flood water protection provisions;
- (ix) designing appropriate landscaping;
- (x) energy conservation and efficiency;
- (xi) waste disposal, salvage, re-use and recycling of materials;
- (xii) avoidance of hazardous materials;
- (xiii) safety, security, and fire; and
- (xiv) energy efficient lighting options.

e. Anticipated Environmental Impacts in Additional Skill Acquisition Program Subprojects

41. The refurbishment of existing buildings in schools and construction of CSPs could cause the following environmental impacts and risks:

- (i) **Site clearance and preparation.** Sites for the refurbishment of existing buildings do not pose any environmental risks, as these are already in use. In the case of new sites, there can be risks such as drain and waterway blockage during site clearance. Vegetation, not properly disposed, could also spread invasive species, thus, causing environmental degradation. Felling of trees also has an environmental impact. Pools of stagnant water could cause health risks by creating vector populations. Site clearance could also lead to, or aggravate, soil erosion, especially during the rainy season.
- (ii) **Soil erosion and water contamination.** If not properly stored and exposed to natural elements, gravel/soil brought for any filling purposes can be washed off to nearby streams, agriculture fields, orchards, rivers or low lying areas, thus causing sedimentation. Storm water congestion on site can create inconveniences to college activities and construction work. Improper placement of training laboratories and sanitation facilities can cause groundwater and drinking water contamination. If not properly treated, wastewater, which is generated during construction and from labor camps, will also contaminate drinking water sources.
- (iii) **Noise generation.** Refurbishment and/or construction of CSPs will cause noise, especially when demolishing buildings and loading and transporting materials. During teaching hours, this may create disturbances to classroom activities and to residents living close to construction sites.

- (iv) **Dust generation.** Demolition of buildings will cause dust. Loading and transportation of debris will increase dust levels. Transportation and storage of new building materials also generate dust. Dust pollution poses health hazard to students, workers at sites, and residents in the vicinity.
- (v) **Transport.** Transportation of building material to and from the site will create noise, dust, and disturbances, and, if not adequately managed, could cause injury to children and damage college property.
- (vi) **Exposure of construction workers to occupational hazards.** Construction workers will be exposed to occupational hazards, if proper safety procedures are not followed. Some training activities can also cause occupational hazards, especially related to the use of sharp objects, hazardous liquids and compounds, and noise generation equipment. Moreover, construction work will, for the most part, take place in the premises of schools and colleges.
- (vii) **Lack of drainage, soil erosion, sedimentation, and health hazards.** If not properly handled, gravel, sand, and soil brought to construction sites might be washed off to nearby streams, agricultural fields, low-lying areas, and backwaters. This can cause sedimentation, thus, blocking natural water flows and degrading habitats.
- (viii) **Contamination of groundwater and surface water.** If not properly channeled into disposal pits or other suitable areas, wastewater can contaminate drinking water sources through runoff. This risk is particularly high when wastewater comes from college laboratories and toilets.
- (ix) **Waste generation.** Any construction will generate construction debris, which unless disposed of appropriately and in a timely manner, will pollute adjoining areas, including potentially sensitive sites and residential areas. The lack of proper construction waste disposal could also block natural drainage systems and create breeding grounds for mosquitoes and waterborne diseases. The functioning of laboratories can pose a risk, as they would increase quantities of hazardous and organic waste. However, the estimated quantities will be very low since any hazardous materials will be used only for training purposes. The lack of appropriate mechanisms to dispose hazardous and toxic waste could lead to the contamination of soil and water resources.
- (x) **Transport.** Heavy vehicle movement during teaching hours could cause accidents, dust, and noise pollution. One of the main sources of accidents and pollution could be open trucks with sand, gravel, and cement.
- (xi) **Resource extraction.** The refurbishment and construction of CSPs will generate a big demand for materials such as sand, clay, and timber; thus, creating a burden on natural resources in the subproject area. Sand mining near rivers and streams and extraction of gravel from burrow pits and quarries could create adverse environmental impacts.
- (xii) **Damage to aesthetics of site and/or area.** Refurbishment and construction of CSPs might have an impact on aesthetics and scenic characteristics of colleges and their environs. Anticipated distortion to current aesthetics will be temporary

and limited to the construction phase. At new sites, the risk of damage might be high, especially if new structures are not consistent with the existing college architectural characteristics.

- (xiii) **Poor sanitary conditions.** Inadequate and nonfunctional washing and toilet facilities expose students to health risks. Shortage of clean drinking water will result in dehydration. At new construction sites, water stressed conditions will be accentuated, unless the sites are planned in such a way that clean water shortages do not occur.
- (xiv) **Lack of adherence to set standards.** Few of the old buildings, which will be refurbished, may not be with occupational safety and health standards. These occupational safety and health standards need to be adhered to during operations.
- (xv) **Lack of maintenance in developed infrastructure.** The lack of adequate funds to maintain CSPs could lead to their rapid deterioration.
- (xvi) **Asbestos handling and usage.** Handling of asbestos during the demolition phase and use, handling, and transport during construction phase may result into adverse impacts on health of workers. For this, necessary protective measures (Annex 8) need to be followed.

42. Short-term construction-related impacts and safeguard risks of proposed subprojects, as outlined above, can be prevented or mitigated by adopting standard operational procedures and good construction management practices. This will require the availability of sufficient funds and their proper management.

E. Asian Development Bank Social Safeguards

1. Exclusion of Subprojects with Potential Involuntary Resettlement Impacts

43. To find out whether a subproject has potential involuntary resettlement impacts, the implementing agency will need to screen the subproject area in order to understand if there was, is, or will be involuntary resettlement impacts. The rationale for screening will be to exclude any activity that might trigger resettlement impacts. The implementing agency will conduct a due diligence to determine whether or not a particular subproject will trigger any resettlement impacts. A proposed subproject is assigned one of the three categories, depending on the significance of its potential involuntary resettlement impacts:

- (i) **Category A.** A proposed subproject is classified as Category A if it is likely to have significant involuntary resettlement impacts. The involuntary resettlement impacts are considered significant, i.e., if 200 or more persons will experience major impacts, which are defined as (a) being physically displaced from housing or (b) losing 10% or more of their productive and income-generating assets. The project would need to prepare a resettlement plan for all the subprojects. **(Subprojects that fall under this category will be excluded from the project.)**
- (ii) **Category B.** A proposed subproject is classified as Category B if it includes involuntary resettlement impacts that are not deemed significant or major but nonetheless may need to be addressed through a resettlement plan.

(Subprojects that fall into this category will also be excluded from ASAP.)

- (iii) **Category C.** A proposed subproject is classified as Category C if it is unlikely to have any involuntary resettlement impacts. Once the status of the subproject is established, no further action will be required. **(All subprojects funded under this project will fall in this category.)**

2. Involuntary Resettlement: Due Diligence

44. The involuntary resettlement due diligence will focus on:

- (i) **Ownership of land that will be used for the subproject.** The subproject will fall into Category A or B if any of the subprojects acquires private, commercial, common, or traditional land. The subproject will not be considered under the ASAP if it falls under Category A or B.
- (ii) **Types of land tenure.** Titled, leased (short, medium, and long-term), tenanted, customary/communal, non-titled (informal settler, squatter, encroacher), and occupied land with government permission for temporary use. If any of the above type of land tenure is found on existing or new land acquired by the subproject, then the subproject will be deemed to have involuntary resettlement impacts and will fall into Category A or B. As a result, the subproject will not be considered under ASAP.
- (iii) **Encumbrances attached to land.** The implementing agency should ascertain whether any involuntary resettlement will occur, if any encumbrance is found. If it does, the subproject will be excluded from ASAP.
- (iv) **Transfer of government land.** If new land is required for the subproject, the date the transfer of the land happened, or will happen, needs to be noted in the due diligence report.
- (v) **Land obtained in anticipation of community skills parks.** Did any transfers of land take place in anticipation of the subproject? If any such land is found, the implementing agency should ascertain whether the land falls into any one of the land tenure classifications outlined in (i), (ii), and (iii). If indeed the tenure is affected, then the subproject will need to be excluded from ASAP.
- (vi) **Temporary impacts:** Will refurbishment/construction of the CSPs have any temporary impacts on the livelihood and source of income of households, access to legally designated parks and protected areas, and common land? If it does, then it should be removed from the ASAP.

3. Exclusion of Subprojects with Impacts on Indigenous People

45. Tribals in Kerala (**Adivasis of Kerala**) are the indigenous population found in the southern Indian state of Kerala. Most of the tribal people of Kerala live in forests and mountains of Western Ghats, bordering Karnataka and Tamil Nadu.

46. According to the Census of India, the schedule tribe population in Kerala is 364,189 (Lunas: 180,169 and Felunas: 184,020). Wayanad district has the highest number of tribals

(136,062). Idukki (50,973) and Palakkad (39,665) districts are the next two that make up for the lion's share of native tribal people groups in Kerala. The Paniya (Paniyar) are the largest of the 35 major tribes. The Government of India and Kerala have instituted special reservations for these tribal populations in employment and made concessions for them in education.

47. No CSP will be located in the vicinity of schedule tribe settlements or on land they claim as their traditional or ancestral land. Therefore, subproject activities will not affect their identity, dignity, human rights, ancestral lands, cultural and belief systems, sacred places, indigenous knowledge, and livelihoods in an adverse manner. The ASAP will not therefore trigger indigenous peoples' safeguard policy principles listed in the SPS.

48. The implementing agency will use the following screening and categorization system to ascertain whether schedule tribes are present in the physical area of the subproject and on the acquired land these tribes claim as their ancestral or traditional land:

- (i) **Category A.** A proposed subproject is classified as Category A if it is likely to have significant impacts on schedule tribes. Significance of impacts is determined by assessing the magnitude of the subproject's impact on their: (a) customary rights of use and access to land and natural resources; (b) socioeconomic conditions; (c) level of cultural and communal integrity; (d) health, education, livelihood, and social security status; (d) level of their vulnerability; and (e) impacts on the recognition of their indigenous knowledge. In this case, an indigenous peoples' plan, containing strategies and mitigation measures, would need to be developed. (**Category A subprojects will be excluded from this project.**)
- (ii) **Category B.** A subproject is classified as B if it is likely to have limited impacts on the criteria listed above. In such case, an indigenous peoples' plan would need to be developed to promote inclusive strategies and mitigate any risks to the livelihoods and social and cultural standing of indigenous peoples (**Category B subprojects will be excluded from this project.**)
- (iii) **Category C.** A proposed subproject is classified as Category C if it is not expected to have impacts on schedule tribes. These are eligible to be included in the project.

F. Institutional Capacity to Address Environmental Safeguard Impacts and Risks State Level

1. Executing and Implementing Agency

49. The DOHE will be the executing agency of ASAP. It will be responsible for the overall implementation of ASAP. The ASAP secretariat, established by DOHE and the Department of General Education, Government of Kerala will be the implementing agency. Other agencies, if added to the implementing agency list of ASAP, will also be expected to follow the ESMF in excluding environmental Category A subprojects and involuntary resettlement and indigenous peoples Category A and B subprojects. Only projects which are B or C in terms of environment, and C for involuntary resettlement and indigenous people will be considered under the proposed ADB assistance.

50. The ASAP secretariat will engage an environment safeguards expert, with good academic background and at least 10 years of relevant field experience, to take the lead in implementing the ESMF. He/she will ensure that all environmental mitigation measures and EMPs are included in the civil works contract documents. It will also ensure that contractors will adhere to the mitigation measures listed in subproject EMPs.

2. Grievance Redress Mechanism

51. At the state level, the KSPCB is the agency which deals with grievances and complaints regarding environmental safeguards compliance. The KSPCB has regional offices but these regional offices often lack resources to carry out safeguard compliance functions. The Central Environmental Authority receives innumerable complaints from the public every year. These complaints mainly relate to dust, noise, and water pollution, arising from industrial or commercial activities. Since the project is yet to start, no complaints have been received yet.

52. Complaints pertaining to adverse environmental impacts are initially dealt with by the Regional Offices of KSPCB. Delays in completion of hearings are frequently noted. Resorting to the court system for redress is always an option available to a grieved party. Each year, a few grievances reach the Court of Appeal for arbitration.

53. GRM is a part of any project supported by ADB. The GRM is a bottom-up multi-tiered structure starting from the subproject level to the division, district levels, and finally to the national level. The local environmental regulatory framework does not provide for an institutionalized GRM. Complaints are recorded and disposed by regional offices of KSPCB. The ASAP will be established at the district level GRM. Procedures of its establishment, functions, powers, membership, and budget will be outlined.

54. Environmental safeguard principles state that project authorities will establish a GRM to receive and facilitate resolution of the affected people's concerns and grievances regarding the project's environmental performance. This requirement applies to ASAP's subproject. The GRM, at a subproject level, will have to be scaled up to the level of risks and impact that might be experienced in each subproject. As a subproject will not generate significant and irreversible environmental impacts and risks, the level of the GRM should be commensurate with site-specific environmental issues and the implementation of concomitant mitigation measures. Responsibilities and organizational structure of the GRM needs to be outlined in a document.

55. The GRM at a subproject level will be established and supported by the implementing agency in cooperation with the district level office of DOHE. A GRM Committee will be established, which will represent the agencies involved in the subproject (contractor, ASAP staff, and District Office staff of DOHE). The safeguard focal person of the subproject will be the Secretary to the Committee. Representatives of the PAPs will also be members of the committee. The committee will give publicity to institutional mechanisms. Expenses of committee meetings will be borne by the implementing agency and will be budgeted in the overall project.

56. GRM will be responsive to affected persons' needs. To facilitate this, it will develop approaches which would enable all PAPs to have access to the GRM. Cultural appropriateness of the constitution of the committee and procedures of hearings will be governed by cultural traditions in the project area. A feedback mechanism has to be built into the GRM to check the acceptance level of clients, especially in relation to terms of impartiality and fairness.

57. The GRM committee will address the concerns and complaints of PAPs promptly, using an understandable and transparent process that is gender-responsive, culturally appropriate, and readily accessible to the affected persons at no cost or without retribution.

58. Each complaint will be recorded and acknowledged by the GRM committee secretary. A complaint will be dealt with within 4 weeks and the decision of the GRM committee will be conveyed to the complainant in writing. A decision of the committee could be appealed to the district level ASAP office for relief. If not satisfied with the district level decision, the complainant could appeal to the ASAP secretariat in Trivandrum. The GRM will not impede on an affected person's access to Kerala's judicial or administrative remedies.

G. Capacity Building and Training for Safeguard Compliance

59. As a part of the capacity building during the implementation of ASAP, training programs will be conducted at the ASAP secretariat, training centers, and CSPs on environmental and social safeguard policies; and how to prepare safeguard planning and monitoring instruments and implement them. The CSP/training center level training will focus on the awareness about safeguard requirements among the staff who will be involved in activities related to construction and/or renovation of buildings and construction of new CSPs.

60. During program supervision missions, ADB will assess environmental compliance of subprojects and will recommend safeguard strengthening exercises, if required. It will also support the strengthening of the application of environmental safeguard policy principles to subprojects, safeguard compliance, and monitoring of safeguard compliance.

H. Monitoring and Reporting

61. As a results-based loan, ASAP has to ensure that environmental safeguard impacts and risks are adequately addressed.

- (i) Establish and maintain procedures to monitor the progress of implementation of safeguard implementation plans. In ASAP, the key safeguard implementation plan will be the EMP for each subproject.
- (ii) With the assistance of the executing agency, the implementing agency(s) will verify the subproject's compliance with safeguard measures and its progress toward intended outcomes.
- (iii) Document and disclose monitoring results and identify necessary corrective and preventive actions in bi-annual monitoring reports.
- (iv) Submit monitoring reports on safeguard measures, as agreed, to ADB (see Annex 10 for format).
- (v) Follow-up on these actions to ensure progress toward the desired outcomes.
- (vi) ASAP will prepare site inspection schedule for the safeguards team to check the compliance with safeguard measures. For site inspection, proper documentation will be done and contractor will be instructed to comply with the inadequacies noted. The adequacies compliance will be followed-up by the site representative

of the safeguards team. A minimum of one inspection per month will be carried out by the environmental specialist of safeguards team to every construction site.

62. Based on environmental data and information generated by due diligence and environmental screening exercises at the subproject level, ASAP's safeguard expert will identify key environmental monitoring indicators. These indicators will be used by the implementing agency(s) to monitor bi-annually safeguard compliance of refurbishment and construction activities. This monitoring report will be sent to ADB for review.

63. The monitoring data of each subproject will be fed into the safeguards database maintained at the ASAP secretariat. This data set will be the basis for verification of results in the sphere of environmental safeguard application.

64. The ASAP secretariat will submit environmental checklists, EMPs, and monitoring reports for ADB's review. A consolidated environmental compliance report will be submitted to ADB on a bi-annual basis. During program implementation support missions, ADB will monitor safeguards compliance of selected subprojects and work with program authorities to develop action plans for corrective measures, if it should, so be required.

I. Disclosure of Safeguard Documents

65. The ESMF and program safeguard systems assessment of ASAP will be disclosed to the public and will be made available for public review at the DOHE, affiliated institutions, and CSP offices. Both the draft and final ESMF will be uploaded on the websites of ADB and DOHE. It will be the guidance document for IEE and EMP formulation. A summary of the ESMF will be translated into Malayalam and will be made available for PAPs, other stakeholders, and posted at CSPs and training centers before the commencement of any subproject activity.

66. Subproject specific safeguard planning documents, i.e., IEEs, EMPs, mitigation plans, and corrective action plans will be disclosed to PAPs and other stakeholders. Environmental safeguard monitoring reports of subprojects too will be disclosed to PAPs and other stakeholders; and copies will be made available at subproject offices and the DOHE. These will also be uploaded in ADB's website. In addition, summaries of these reports will be translated into Malayalam and made available in a timely manner and in accessible places. All these documents will be sent to ADB for review. The DOHE will review the following documents for disclosure in ADB's website:

- (i) draft IEE (including the draft EMP);
- (ii) final IEE with EMP;
- (iii) new or updated IEE with corrective action plans, if applicable; and
- (iv) environmental monitoring reports.

J. Environmental and Social Management Framework Update

67. The DOHE will continuously update the ESMF in its website and will welcome comments and suggestions. These updates might be necessary in the wake of experiences accumulated through the application of safeguard principles, or from significant changes in the state government's environmental policy and the regulatory framework, or from revisions to ADB's SPS principles. The safeguard officer at the ASAP secretariat will be responsible for revising and/or updating the ESMF. Any revisions to, and update of the ESMF, will be done in concurrence with ADB.

ANNEX 1

OVERVIEW OF INDIA/KERALA'S ENVIRONMENTAL RULES AND REGULATIONS

A. Constitutional Provisions

1. Article 48-A of the Constitution provides a directive principle, which states that the state shall endeavor to protect and improve the natural environment. Article 51-A of the Constitution declares it as a fundamental duty of every citizen of India to protect and improve the natural environment including forests, lakes, rivers, and wild life and to have compassion for living creatures.

B. National Environment Policy, 2006

2. India's National Environment Policy, 2006 seeks to extend the coverage and fill in gaps by building on earlier policies such as the National Forest Policy, 1988; National Conservation Strategy and Policy Statement on Environment and Development, 1992; and Policy Statement on Abatement of Pollution, 1992. The objectives of the National Environment Policy, 2006 are:

- (i) conservation of critical environmental resources;
- (ii) intra-generational equity: livelihood security for the poor;
- (iii) inter-generational equity;
- (iv) integration of environmental concerns in economic and social development efficiency in environmental resource use;
- (v) environmental governance; and
- (vi) enhancement of resources for environmental conservation.

C. Laws on Environmental Assessment

3. The Government of India has laid down various policy guidelines, acts, and regulations pertaining to sustenance of the environment. The Environment (Protection) Act, 1986 provides an umbrella legislation for protecting the environment. As per this Act, the responsibility of administering this legislation rests on the Central Ministry of Environment and Forests (MOEF) and the Central Pollution Control Board (CPCB) /State Pollution Control Board (SPCB).

4. The lists of all applicable regulations of the Government of India are provided in the table below:

Summary of Applicable Regulations

S. No.	Act / Rules	Purpose	Applicability to ASAP Project	Authority
1	Environment Protection Act, 1986	To protect and improve overall environment	Applicable	MOEF, Government of India DOE, Government of Kerala CPCB, SPCB
2	EIA Notification (14 Sep 2006 as amended in 2009 and 2013)	To provide environmental clearance to new development activities following EIA	Not applicable, as EIA notification is applicable to buildings developed having an	MOEF, SEIAA

S. No.	Act / Rules	Purpose	Applicability to ASAP Project	Authority
			area of <20, 000 m ² >	
3	Notification for Use of Fly Ash, 2003	Reuse large quantity of fly ash discharged from thermal power plant to minimize land use for disposal	Not applicable, as project is not a linear project	MOEF
4	CRZ Notification, 1991 (amended in 2011)	Protection of fragile coastal belts	Not applicable, as none of the CSPs are planned in the CRZ	State Level Coastal Zone Management Authority and MOEF
5	NEAA, 1997	Address grievances regarding the process of environmental clearance	To address grievances of public due to clearance of project or any conduct of MOEF	NEAA
6	The Forest (Conservation) Act, 1927 The Forest (Conservation) Act, 1980 The Forest (Conversion) Rules, 1981	To check deforestation by restricting conversion of forested areas into non-forested areas	Not applicable, as none of the project activities will be planned in protected forest areas	MOEF and Forest Department, Government of Kerala
9	MOEF circular (1998) on linear plantation on roadsides, canals, and railway lines modifying the applicability of provisions of the Forest (Conservation) Act to linear plantation	Protection/planting roadside strip as avenue/strip plantations as these are declared protected forest areas	Not applicable, as the project is not a linear project	MOEF
10	Wild Life Protection Act, 1972	To protect wildlife and preserve national parks and sanctuaries	Not applicable, as none of the project activities will be taken up in protected areas	Chief Conservator Wildlife, Wildlife Wing, Forest Department, Government of Kerala
11	Air (Prevention and Control of Pollution) Act, 1981	To control air pollution	Yes, applicable as during construction there will be emissions of air pollutants due to construction activities	SPCB
12	Water Prevention and Control of Pollution Act, 1974	To control water pollution by controlling discharge of pollutants, as per prescribed standards	Yes, applicable because there will be generation of wastewater and other water-based pollutants during construction and operations	SPCB
13	Noise Pollution (Regulation and	Standards for permitted level of noise during the	Applicable, as CSP construction activities	SPCB

S. No.	Act / Rules	Purpose	Applicability to ASAP Project	Authority
	Control Act), 1990	day and night have been promulgated by the MOEF for various land uses	will generate noise	
14	Ancient Monuments and Archaeological Sites and Remains Act, 1958	Conservation of cultural and historical remains found in India	Not applicable, as the project will not plan to construct a CSP within 300 meters of protected monuments	Archaeological Department, Government of India INTACH
15	Public Liability and Insurance Act, 1991	Protection from hazardous materials and accidents.	Not applicable, as CSP construction activities will not entail the use of hazardous materials	SPCB
16	Explosives Act, 1984	Safe transportation, storage, and use of explosive materials	Not applicable, as CSP construction activities will not entail the use of any explosive materials	Chief Controller of Explosives, Nagpur
17	Minor Mineral and Concession Rules	For opening new quarries	Not applicable, as the project is an education sector project	District Collector
18	Central Motor Vehicle Act, 1988 and Central Motor Vehicle Rules, 1989	To check vehicular air and noise pollution	Applicable, as during CSP construction there will be use of vehicles and these vehicles need to operate within permissible emission levels	Motor Vehicle Department
19	National Forest Policy, 1952 National Forest Policy(Revised), 1988	To maintain ecological stability through preservation and restoration of biological diversity	Not applicable, as no project activity is planned in forest areas	Forest Department, Government of India and Government of Kerala
20	The Mining Act	The mining act has been notified for safe and sound mining activities	Not applicable, as the project is not related to mining activities	Department of Mining, GOK

CPCB = Central Pollution Control Board, CRZ = Coastal Regulation Zone, CSP = community skills park, DOE = Department of Environment, EIA = environmental impact assessment, INTACH = Indian Heritage Society and Indian National Trust for Art and Culture, m² = square meter, MOEF = Ministry of Environment and Forests, NEAA = National Environment Appellate Authority, SEIAA = State Environmental Impact Assessment Authority, SPCB = State Pollution Control Board.

Source: Asian Development Bank.

5. A brief description of these acts and rules is given below:

- (i) **The Forest (Conservation) Act, 1980.** The Forest (Conservation) Act, 1980 pertains to cases of diversion of forest area and felling of trees. Depending on the size of the tract to be cleared, government clearances are applied at the following levels: (a) if the forest area to be cleared or diverted exceeds 20 hectares (ha) (or 10ha in hilly area) then prior permission of the Central Government (MOEF) is required; (b) if the forest area to be cleared or diverted is between 5 to 20 ha, the Regional Office of the chief conservator of Forests

(MOEF) is empowered to approve; (c) if the forest area to be cleared or diverted is below or equal to 5 ha, the state government (State Forest Department) can give permission; and (d) if the area to be clear-felled has a forest density of more than 40%, permission to undertake any work is needed from the Central Government (MOEF), irrespective of the area to be cleared. Restrictions and clearance procedure proposed in the Forest (Conservation) Act applies wholly to natural forest areas, even in cases where the protected/designated forest area does not have any vegetation cover.

- (ii) **The Environment (Protection) Act, 1986 and the Environmental Impact Assessment Notification, 2006.** The Environmental (Protection) Act, 1986 is the umbrella legislation which provides for the protection of the environment in the country. This Act provides for the Environment (Protection) Rules, which have since been formulated. The Environmental Impact Assessment Notification, 2006 and the Amendment thereto (22 August 2013) have been notified under the Environmental (Protection) Act, 1986. The Environmental Impact Assessment (EIA) Notification has been introduced to ensure that projects receive prior clearance.
- (iii) **The Wildlife (Protection) Act, 1972.** The Wildlife Protection Act has allowed the government to establish a number of national parks and sanctuaries over the past 25 years, and to protect and conserve flora and fauna. If any activities related to any given project are taken up in protected areas, then prior clearance is needed from the State Wild Life Board and the National Board for Wild Life (within MOEF).
- (iv) **The Water and Air (Prevention and Control of Pollution) Act.** The Water (Prevention and Control of Pollution) Act, 1974 resulted in the establishment of the CPCB and SPCB whose responsibilities include managing water quality and effluent standards, as well as monitoring water quality, prosecuting offenders and issuing licenses for construction and operation of certain facilities. The SPCB is empowered to set air quality standards and monitor and prosecute offenders under The Air (Prevention and Control of Pollution) Act, 1981. Additionally, as per the Gazette notification dated 10 April 1997, SPCB is also empowered for public hearing of all projects, including road projects.
- (v) **The Motor Vehicles Act, 1988.** In 1988, the Indian Motor Vehicles Act empowered the State Transport Authority to enforce standards for vehicular pollution and prevention control. The authority also checks emission standards of registered vehicles, collects road taxes, and issues licenses. In August 1997, the Pollution under Control Certificate Program was launched in an attempt to crackdown on vehicular emissions.
- (vi) **The Ancient Monuments and Archaeological Sites and Remains Act, 1958.** According to this Act, area within a radius of 100 and 300 meters from the “protected property” are designated as “protected areas” and “controlled areas” respectively. No development activity (including building, mining, excavation, blasting) is permitted in the “protected area” and development activities likely to damage the protected property are not permitted in the “controlled area” without prior permission of the Archaeological Survey of India if the site is protected by it or the State Department of Archaeology if the site is protected by the state.

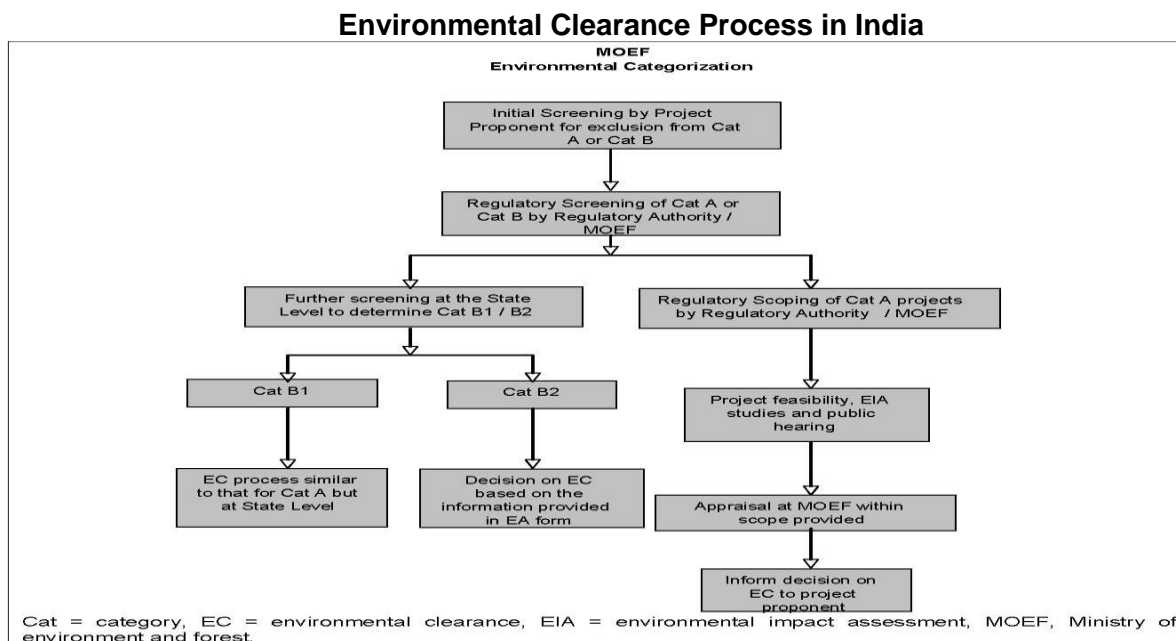
- (vii) **Notification for Use of Fly Ash, 2003.** The MOEF issued a notification under the Environment (Protection) Act, 1986 for the utilization of fly ash in earthworks in road projects within 100 kilometer radius from coal-based power plants. The aim of this Act is to minimize impact on agriculture and protection for land used for earthwork.
- (viii) **Coastal Regulation Zone Notification, 2011.** The Coastal Regulation Zone, 2011 has been notified to protect coastal belts and regulate development near the coast for ecological protection and national security.
- (ix) **MOEF circular (1998) on linear plantation on roadside, canals and railway lines modifying the applicability of provisions of Forest (Conservation) Act linear plantations.** This circular has been issued to increase forest cover and to protect linear plantations. This circular is effective for states like Rajasthan where forest cover is minimal.
- (x) **Noise Pollution (Regulation and Control) Act, 1990.** Under this Act, MOEF has promulgated noise standards for the usage of land during the day and night.
- (xi) **Public Liability and Insurance Act, 1991.** This Act has been enacted to provide protection from transportation, handling, and storage of hazardous materials. The occupier has to compensate people who are affected by any mishap or accidents that might happen while handling, transport and storage.
- (xii) **Explosive Act, 1984.** This Act has been enacted for safe transportation, handling, storage, and use of explosive materials.
- (xiii) **Minor Mineral and Concession Rules.** These rules have been notified for sand mining and for small quarry opening for aggregates.
- (xiv) **The Mining Act.** This Act has been enacted for safe and sound mining activities and for the restoration of mined areas. The Act also aims to regulate mining activities.
- (xv) **State Level Legislation and other Acts.** No specific state-level legislation relevant to environmental clearance requirements, other than those mentioned above are in force in Kerala. However, the consent to establish and operate will be required from the Kerala State Pollution Control Board for community skills parks with more than 20,000 square foot area.
- (xvi) With respect to hygiene and health, especially during the construction stage, the Factories Act, 1948 and the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 would apply.
- (xvii) The provisions of the Hazardous Wastes (Management and Handling) Rules, 1989 and the Chemical Accidents (Emergency Planning, Preparedness, and Response) Rules, 1996 might also apply during construction and operations.

- (xviii) The implementation of environmental legislation in India is a state-subject and all laws and acts are enacted by the state government with guidance from MOEF and CPCB.

D. Environmental Assessment Process in India

6. In the Environmental Impact Assessment (EIA) Notification, 2006 of MOEF, a project is classified as either A, B1, or B2. This classification factors in project type, size, and sensitivity of location. Further, only those activities listed in the EIA Notification require prior environmental clearance. In this project, the CSP sites will fall under serial no. 8 (a) of EIA Notification schedule. Category 'A' projects are appraised by the Environmental Appraisal Committee (EAC) and recommended to MOEF for clearance. All category 'B' projects are appraised by State Level EACs and recommended for clearance to state level EIA authorities. State level EIA authorities and EACs have been constituted by the Department of Environment situated in each state and union which, in turn, works under the guidance and instructions of MOEF.

7. Projects, which fall under category A and B1, require an EIA. These are processed for environmental clearance at MOEF and at the state level, respectively. Category B2 does not require EIA but needs information to be submitted in a prescribed format (Form -1 and 1 A) to the State Department of Environment for review. For MOEF, projects under category B1 may be re-categorized as A if General Conditions are violated. The clearance process in India is shown in the figure below:



8. The process of obtaining environmental clearance entails that concerned parties first submits an application by filling Form-1 for Category A and Category B1 Projects, along with the proposed terms of reference (TOR) for the EIA study and Form-1 and Form-1 A for Category B2 projects, along with the pre-feasibility of the project. After scrutinizing the pre-feasibility of the project, the EAC approves the TOR for the EIA study for Category A and B1 projects and, if satisfied, clears Category B2 projects.

9. After obtaining the TOR from the EAC, the EIA study is completed by the project proponent and draft EIA report is submitted for public hearing to the SPCB. The SPCB publishes notifications for organizing public hearing in newspapers and the EIA report is disclosed on the website of the Pollution Control Board and other prominent offices of the district administration and regional offices of SPCB. The public hearing is conducted by the SPCB with the assistance of the district administration at a notified venue after 1 month and all comments and suggestions from the public are noted for incorporation in the project design and EMP.

10. After the public hearing, the project proponent incorporates all comments and suggestions of the public in the draft EIA report, and submits the final EIA report to the EAC for clearance. If the EAC is convinced, then it recommends the project for clearance to MOEF for Category 'A' projects and the state level EIA Authority for category 'B1' projects.

ANNEX 2

OVERVIEW OF INDIA AND KERALA'S SOCIAL SAFEGUARD RULES AND REGULATIONS

A. National Rehabilitation and Resettlement Policy

1. The National Rehabilitation and Resettlement Policy (NRRP) came into existence in 2007. Another bill, which focuses on the rehabilitation and resettlement of affected persons, namely the National Rehabilitation and Resettlement Bill, 2007 has been tabled in the parliament. However, this bill is yet to be adopted. The NRRP provides broad guidelines and executive instructions and will be applicable to all projects. The NRRP focuses on providing basic rehabilitation measures for populations involuntarily displaced by projects and entails that projects must address rehabilitation and resettlement issues comprehensively.

B. The Right to Fair Compensation in Land Acquisition, Rehabilitation, and Resettlement Act, 2013

2. The Land Acquisition Act governs land acquisition and compensation. The Act describes the process to be adopted in notifying land required for public purposes or for a company. It also includes procedures for enquiry, hearing of objections, and the fixing of compensation. The Act prescribes a two-year time limit from the date of declaration within which the process has to be completed. The previous Land Acquisition Act has been revised and this new Act has been introduced to better compensate project affected persons. The Act aligns its provisions to the goals and objectives of the NRRP, 2007.

C. Other Relevant Social Legislations

3. The following are the other relevant social legislations:

- (i) Schedule Caste and Schedule Tribes (Prevention of Atrocities Act), 1989
- (ii) Provisions of the Panchayat (Extension to Scheduled Areas) Act (PESA), 1996
- (iii) The Constitution (Eighty-Ninth Amendment) Act, 2003
- (iv) The Schedule Tribe and other Traditional Forest Dwellers (Recognition of Forest Rights) Act, 2006

ANNEX 3

COMPARING INDIA/KERALA'S ENVIRONMENT SAFEGUARDS WITH ADB'S SAFEGUARDS POLICY STATEMENT (2009)

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Principles Requirements	Assessment of Implementation Capacity
1. Use a screening process for each proposed project, as early as possible, to determine the appropriate extent and type of environmental assessment.	Yes	The EIA Notification, 2006 screens the projects/activities in three categories A, B1, and B2. This categorization is based on foreseen impacts of projects/activities. For this, an application has to be submitted by filling Form-1, draft TOR for EIA study, pre-feasibility for category A and B1 projects, and Form-1 and Form -1A for B2 projects. Based on these details, the EAC/SEIAA approves the TORs and confirms the categorization of the project. SEIAA has been constituted in each state. Thus, the SPS' environmental safeguard policy principle is congruent with that of MOEF's screening process.	Categorization competence and TOR approval is adequate and matches with ADB's SPS Principle 1.
2. Conduct an environmental assessment for each proposed project to identify potential direct, indirect, cumulative, and induced impacts and risks to physical, biological, socioeconomic and physical cultural resources in the context of the project's area of influence.	Yes	PAA provides the TOR for environmental assessment. PAA guides PP to select qualified experts to do necessary fieldwork and consultations. The ASAP subprojects have limited adverse environmental impacts. Therefore, only IEEs will be prepared. This is the low threshold of 'prescribed' projects. The regulatory system applicable to ASAP is adequate for this task.	The ASAP activities to be taken up will not attract provisions of EIA Notification, 2006 as the building area for each CSP is less than 20,000 m2. However, ADB's SPS requires an IEE to be prepared for projects categorized as B. The executing and implementing agency do not have required environmental safeguards expertise. By hiring a Safeguard Expert, the ASAP secretariat will overcome this weakness. The anticipated adverse environmental impacts of the project are not significant. The executing agency displays a high awareness about potential negative environmental

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Principles Requirements	Assessment of Implementation Capacity
			impacts of the program.
3. Examine alternatives to the project's location, design, technology, and components and their potential environmental and social impacts and document the rationale for selecting the particular alternative proposed. Also consider the no project alternative.	Yes	Not applicable to the project's building refurbishment activities as all the construction activities will be undertaken at existing and already functional sites. For new sites, this principle could be triggered. The local environmental regulatory framework through the PAA provides sufficient guidelines on examining alternatives to the project location, design, and technology.	Alternatives for site selection will be explored during site selection. This principle is being applied so that new sites are not in ecological sensitive areas, or in areas having severe environmental impacts.
4. Avoid, and where avoidance is not possible, minimize, mitigate, and/or offset adverse impacts and enhance positive impacts by means of environmental planning and management. Prepare an EMP that includes the proposed mitigation measures, environmental monitoring and reporting requirements, related institutional or organizational arrangements, capacity development and training measures, implementation schedule, cost estimates, and performance indicators.	Yes	Refer note on Principle 1 above. The environmental regulatory framework provides no environmental assessment requirement for small buildings construction when compared with ADB's safeguard requirements, although through TOR, PAA provides guidance for IEE and actions to overcome adverse environmental impacts. The program's ESMF will provide sufficient and comprehensive guidance in this regard. The EMP is considered an integral part of IEE and is not submitted separately to PAA for review. IEE includes all action plans to overcome adverse impacts. Under ASAP, a format of an EMP is provided and listed in the ESMF (Annex 8).	The ESMF and ADB SPS principle ensures preparation of IEE report which will have mitigation measures (EMP) for pre-construction, construction, and operation phases. The EMP implementation will ensure that mitigation measures are adhered to. An environment safeguards officer will be recruited by the ASAP secretariat to implement the ESMF.
5. Carry out meaningful consultation with affected people and all other stakeholders. Continue consultations during project implementation.	Yes	The environmental regulatory framework provides opportunities for consultation with PAPs and other stakeholders during the public hearing process. However, in the case of the current project, there will be no public hearing because EIA Notification, 2006 is not applicable. To meet ADB's SPS principle requirements, consultations are part of IEE/EIA formulation. In case of the applicability of EIA Notification, public hearing is conducted after one month of notification by the SPCB and all	Since the construction of CSPs will be undertaken within premises owned by government of Kerala, there is no need for acquiring land or displacing anyone. In case any group of people living near the site for the potential CSPs have any grievance, then the ASAP secretariat will organize meaningful consultations to understand the

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Principles Requirements	Assessment of Implementation Capacity
		comments and suggestions of the public are noted for incorporation in project design. In the present case, the ESMF ensures consultations will be held with all stakeholders during IEE preparation and these will be organized by the ASAP Safeguard officer. Consultation during implementation of a project is the responsibility of the executing and implementing agency.	nature of the problem and take corrective action.
6. Disclose a draft environmental assessment (including the EMP) in a timely manner, before project appraisal, in an accessible place and in a form and language(s) understandable to affected people and other stakeholders. Disclose the final environmental assessment, and its updates if any, to affected people and other stakeholders.	Yes	Environmental regulatory framework directs the PAA to disclose the draft EIA to the public and to seek their views, comments, and recommendations during public hearing. Public hearing meetings are organized by the SPCB. The final EIA report is normally disclosed by MOEF for Category A projects. For Category B projects, it is normally not required.	To enable the implementing agency to ensure timely disclosure of safeguard processes and documentation in local languages, it is necessary to build institutional capacity within the ASAP secretariat.
7. Implement the EMP and monitor its effectiveness. Document monitoring results, including the development and implementation of corrective actions and disclose monitoring reports.	Yes	Limited scope in the local regulatory framework to monitor the implementation of actions in EIA and the formulation of corrective actions, if required. The ESMF has elaborated these requirements and provided guidance on this aspect.	EMPs are seldom parts of contract documents in the building permit process. Hence, the probability that contractors follow good safeguard practices is low. Training and capacity building is needed for the implementation of the EMP, particularly organizations likely to take up construction works for CSPs and license and permission providing agencies such as Municipalities/Panchayats/Development Authorities.
8. Do not implement project activities in areas of critical habitats. If a project is located within a legally	No	The regulatory framework provides for the protection of critical habitats and environmentally sensitive areas.	Not applicable to the project.

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Principles Requirements	Assessment of Implementation Capacity
protected area, implement additional programs to promote and enhance the conservation aims of the protected area. Use a precautionary approach to the use, development, and management of renewable natural resources.		In the case of this project, if new sites are considered, the sites will always be on government land. Hence, no development will be planned in sensitive areas. Projects in environmentally sensitive areas will fall in Category A of EIA Notification, 2006 and these also fall under category 'A' as per ADB's SPS also.	
9. Apply pollution prevention and control technologies and practices consistent with international good practices as reflected in internationally recognized standards such as the World Bank Group's Environmental, Health, and Safety Guidelines. Adopt cleaner production processes and good energy efficiency practices. Avoid pollution, or, when avoidance is not possible, minimize or control the intensity or load of pollutant emissions and discharges, including direct and indirect greenhouse gases emissions, waste generation, and release of hazardous materials from their production, transportation, handling, and storage. Avoid the use of hazardous materials. Purchase, use, and manage pesticides based on integrated pest management approaches and reduce reliance on synthetic chemical pesticides.	Yes	The Environment (Protection) Act, 1986 and rules and notifications provided therein ensure sufficient instructions in this regard. Environmental regulatory framework generally meets the World Bank Group's Environmental, Health, and Safety Guidelines. ESMF will elaborate on these further.	The general recommendation for more training and capacity building for all stakeholders involved is valid also for this item.
10. Conserve physical cultural	No	The environmental regulatory framework provides	Not applicable to the project.

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Principles Requirements	Assessment of Implementation Capacity
resources and avoid destroying or damaging them by using field-based surveys that employ qualified and experienced experts during environmental assessment. Provide for the use of "chance find" procedures that include a pre-approved management and conservation approach for materials that may be discovered during project implementation.		for the conservation of physical cultural resources and to protect such resources. Not applicable to refurbishment of existing buildings under ASAP. If new sites are considered, these will always be on government land. Hence, no development will be planned in a sensitive or "unexplored" area.	
11. Provide workers with safe and healthy working conditions; and prevent accidents, injuries, and disease. Establish preventive and emergency preparedness and response measures.	Yes	The local laws (especially Factories Act, 1948) and other rules and procedures cover these aspects sufficiently.	The implementation is poor due to lack of proper training, and financial resources. The contractors and associated project team needs training on safety of workers and for the procurement of personal protective equipment.

ADB = Asian Development Bank, ASAP = Additional Skill Acquisition Program, CSP = community skills park, EAC = Environmental Appraisal Committee, EIA = environmental impact assessment, EMP = environmental management plan, ESMF = environmental and social management framework, IEE = initial environmental evaluation, m² = square meter, MOEF = Ministry of Environment and Forests, PAA = project approving authority, PAP = project affected person, SEIAA = State Environmental Impact Assessment Authority, SPCB = State Pollution and Control Board, SPS = Safeguard Policy Statement, TOR = terms of reference.

Source: Asian Development Bank.

ANNEX 4
COMPARING INDIA/KERALA'S INVOLUNTARY RESETTLEMENT FRAMEWORK WITH
ADB'S SAFEGUARDS POLICY STATEMENT (2009)

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Involuntary Resettlement Safeguard Requirements	Assessment of Implementation Capacity
1. Screen the project early on to identify past, present, and future involuntary resettlement impacts and risks. Determine the scope of resettlement planning through a survey and/or census of displaced persons, including a gender analysis, specifically related to resettlement impacts and risks.	Yes	<p>NPRR, 2007 also defines screening of projects for applicability. The national policy defines a “cut-off” threshold tied to the number of families that need to be displaced for the policy to be triggered (500 families in plains and 250 in hilly regions).</p> <p>ADB has three categories of impact: A (Significant) where 200 or more people experience major impacts; B (Not Significant) where impacts are not deemed significant (less than 200 persons affected); and C where no involuntary resettlement impacts are foreseen.</p> <p>Thus, there is some congruence in ADB's SPS and Indian NPRR.</p>	The ASAP project plans all CSP sites on unencumbered government land with no involuntary resettlement requirement.
2. Carry out meaningful consultations with affected persons, host communities, and concerned nongovernment organizations. Inform all displaced persons of their entitlements and resettlement options. Ensure their participation in planning, implementation, and monitoring and evaluation of resettlement programs. Pay particular attention to the needs of vulnerable groups, especially those below the poverty line, landless, elderly, women and children, indigenous peoples, and those without legal	No	There are provisions for consultations, GRM with affected population in NRRP, 2007, if triggered. ADB's SPS also has consultation requirements.	Not Applicable to ASAP. However, the ESMF prepared for the project includes meaningful consultations with the stakeholders and establishment of a GRM.

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Involuntary Resettlement Safeguard Requirements	Assessment of Implementation Capacity
<p>title to land; and ensure their participation in consultations. Establish a GRM to receive and facilitate resolution of the affected persons' concerns. Support the social and cultural institutions of displaced persons and their host population. Where involuntary resettlement impacts and risks are highly complex and sensitive, compensation and resettlement decisions should be preceded by a social preparation phase.</p>			
<p>3. Improve, or at least restore, the livelihoods of all displaced persons through (i) land-based resettlement strategies when affected livelihoods are land-based, where possible, or cash compensation at replacement value for land when the loss of land does not undermine livelihoods; (ii) prompt replacement of assets with access to assets of equal or higher value; (iii) prompt compensation at full replacement cost for assets that cannot be restored; and (iv) additional revenues and services through benefit sharing schemes where possible.</p>	No	<p>Though the NPRR says replacement value in the preamble, it is not clearly mentioned in the body. The ADB's SPS is more elaborate on compensation for various categories of affected persons.</p>	<p>Not applicable to ASAP project as all sites planned shall be on unencumbered land.</p>

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Involuntary Resettlement Safeguard Requirements	Assessment of Implementation Capacity
4. Provide physically and economically displaced persons with needed assistance, including the following: (i) if there is relocation, secured tenure to relocation land, better housing at resettlement sites with comparable access to employment and production opportunities, integration of resettled persons economically and socially into their host communities, and extension of project benefits to host communities; (ii) transitional support and development assistance, such as land development, credit facilities, training, or employment opportunities; and (iii) civic infrastructure and community services, as required.	No	The NPRR, 2007 has provisions for needed assistance to physically and economically displaced persons. ADB's SPS requires clear cut entitlement matrix and this covers all types of assistance and all categories of project affected families.	Not applicable to ASAP.
5. Improve the standards of living of the displaced poor and other vulnerable groups, including women, to at least national minimum standards. In rural areas, provide them with legal and affordable access to land and resources, and in urban areas provide them with appropriate income sources and legal and affordable access to adequate housing.	No	NPRR gives preference to STs in land allotment. Additional financial assistance is also defined for them. Their traditional rights to natural resources in the area will be recognized. ADB's SPS supports improvements of standards of vulnerable group.	Not applicable to ASAP.
6. Develop procedures in a transparent, consistent, and	No	NPRR and the land acquisition act have transparent and consistent procedure. ADB's	Not applicable to ASAP as no land acquisition is planned for the

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Involuntary Resettlement Safeguard Requirements	Assessment of Implementation Capacity
equitable manner if land acquisition is through negotiated settlement to ensure that those people who enter into negotiated settlements will maintain the same or better income and livelihood status.		SPS also recommends for transparent and consistent procedures.	construction of project related infrastructure.
7. Ensure that displaced persons without titles to land or any recognizable legal rights to land are eligible for resettlement assistance and compensation for loss of non-land assets.	No	NPRR states that the landless, forest dwellers, tenants, and artisans are more severely affected but no mention is made of specific entitlements for them. No clear cut guidelines for encroachers and squatters. In ADB-funded projects, non-title holders are eligible for compensation.	Not applicable to ASAP.
8. Prepare a resettlement plan elaborating on displaced persons' entitlements, income and livelihood restoration strategy, institutional arrangements, monitoring and reporting framework, budget, and time-bound implementation schedule.	No	NPRR states that the resettlement plan is required where over 500 families are affected in plain areas and 250 or more families are affected in hilly areas. 500 families are about 2,500 persons in the Indian context and this is over 10 times the ADB requirement, which is 200 persons or more.	Not applicable to ASAP project.
9. Disclose a draft resettlement plan, including documentation of the consultation process in a timely manner, before project appraisal, in an accessible place and a form and language(s) understandable to affected persons and other stakeholders. Disclose the final resettlement plan and its updates to affected persons and other stakeholders.	No	Both NRRP and ADB's SPS have provisions for disclosure of draft resettlement plan.	Not Applicable to ASAP project.
10. Conceive and execute involuntary resettlement as part of a development project or program.	No	Both NPRR and ADB's SPS have a requirement of inclusion of resettlement cost in the project cost. Major resettlement projects are	Not applicable to ASAP.

ADB Policy Principle	Triggered by the Program	Gap Analysis	
		Congruence Between Country Safeguard System and SPS Involuntary Resettlement Safeguard Requirements	Assessment of Implementation Capacity
Include the full costs of resettlement in the presentation of project's costs and benefits. For a project with significant involuntary resettlement impacts, consider implementing the involuntary resettlement component of the project as a stand-alone operation.		implemented as stand-alone projects.	
11. Pay compensation and provide other resettlement entitlements before physical or economic displacement. Implement the resettlement plan under close supervision throughout project implementation.	No	There is congruence between NPRR and ADB's SPS as both require compensation payment before physical displacement.	Not applicable to ASAP project.
12. Monitor and assess resettlement outcomes, their impacts on the standards of living of displaced persons, and whether the objectives of the resettlement plan have been achieved by taking into account the baseline conditions and the results of resettlement monitoring. Disclose monitoring reports.	No	There is requirement for social audit in NPRR after implementation of resettlement plan, in ADB's SPS a monitoring and evaluation study is taken up in post implementation phase. Hence, there is congruence between the two policies.	Not applicable to ASAP.

ADB = Asian Development Bank, ASAP = Additional Skill Acquisition Program, CSP = community skills park, ESMF = environmental and social management framework, GRM = grievance redress mechanism, NRRP = National Policy of Rehabilitation and Resettlement, SPS = Safeguard Policy Statement.

Source: Asian Development Bank.

ANNEX 5

ASIAN DEVELOPMENT BANK-PROHIBITED INVESTMENT ACTIVITIES LIST

1. The following investment activities will not qualify for Asian Development Bank support:
 - (i) Production or activities involving harmful or exploitative forms of forced labor¹ or child labor;²
 - (ii) Production of or trade in any product or activity deemed illegal under host country laws or regulations or international conventions and agreements or subject to international phase-outs or bans, such as (a) pharmaceuticals,³ pesticides, and herbicides;⁴ (b) ozone-depleting substances;⁵ (c) polychlorinated biphenyls⁶ and other hazardous chemicals;⁷ (d) wildlife or wildlife products regulated under the Convention on International Trade in Endangered Species of Wild Fauna and Flora;⁸ and (e) transboundary trade in waste or waste products;⁹
 - (iii) Production of or trade in weapons and munitions, including paramilitary materials;
 - (iv) Production of or trade in alcoholic beverages, excluding beer and wine;¹⁰
 - (v) Production of or trade in tobacco;¹¹
 - (vi) Gambling, casinos, and equivalent enterprises;¹²
 - (vii) Production of or trade in radioactive materials,¹³ including nuclear reactors and components thereof;
 - (viii) Production of, trade in, or use of un-bonded asbestos fibers;¹⁴

¹ Forced labor means all work or services not voluntarily performed, that is, extracted from individuals under threat of force or penalty.

² Child labor means the employment of children whose age is below the host country's statutory minimum age of employment or employment of children in contravention of the International Labour Organization Convention No. 138 "Minimum Age Convention" (www.ilo.org).

³ A list of pharmaceutical products subject to phase-outs or bans is available at <http://www.who.int>.

⁴ A list of pesticides and herbicides subject to phase-outs or bans is available at <http://www.pic.int>.

⁵ A list of the chemical compounds that react with and deplete stratospheric ozone resulting in the widely publicized ozone holes is listed in the Montreal Protocol, together with target reduction and phase-out dates. Information is available at <http://www.unep.org/ozone/montreal.shtml>.

⁶ A group of highly toxic chemicals, polychlorinated biphenyls, are likely to be found in oil-filled electrical transformers, capacitors, and switchgear dating from 1950 to 1985.

⁷ A list of hazardous chemicals is available at <http://www.pic.int>.

⁸ A list is available at <http://www.cites.org>.

⁹ As defined by the Basel Convention, see <http://www.basel.int>.

¹⁰ This does not apply to investee companies who are not substantially involved in these activities. Not substantially involved means that the activity concerned is ancillary to an investee company's primary operations.

¹¹ See footnote 10.

¹² See footnote 10.

¹³ This does not apply to the purchase of medical equipment, quality control (measurement) equipment, and any equipment for which ADB considers the radioactive source to be trivial and adequately shielded.

¹⁴ This does not apply to the purchase and use of bonded asbestos cement sheeting where the asbestos content is less than 20%.

- (ix) Commercial logging operations or the purchase of logging equipment for use in primary tropical moist forests or old-growth forests; and
- (x) Marine and coastal fishing practices, such as large-scale pelagic drift net fishing and fine mesh net fishing, harmful to vulnerable and protected species in large numbers, and damaging to marine biodiversity and habitats.

ANNEX 6**OUTLINE OF AN ENVIRONMENTAL AUDIT/DUE DILIGENCE REPORT**

1. Executive Summary
2. Subproject Description
3. Its Past and Current Activities
4. Summary of National Environmental Laws, Regulations, and Standards and Asian Development Bank Safeguard Principles Applicable
5. Audit and Site Investigation Procedure
6. Findings and Areas of Concern
7. Corrective Action Plan to Address Areas of Concern
8. Budget/Cost
9. Timeframe

ANNEX 7

ENVIRONMENTAL MANAGEMENT PLAN

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
1. PLANNING PHASE (Sitting of CSP Sites)				
a) New site identification for CSPs and training centers	<p>Damage to vegetation and ecosystems and felling of trees</p> <p>Site in reserved/protected forest</p> <p>Site in protected areas(national park, wild life sanctuary, bird sanctuary)</p> <p>Site near defense installations</p>	<p>Develop designs that help to minimize clearing or disturbance to vegetation and trees.</p> <p>Avoid sites in reserved/protected forest.</p> <p>Avoid sites in protected areas in order to avoid clearance processes and impacts, as well as to meet ADB's SPS principles.</p> <p>Avoid sites near defense installations to avoid any conflicts with defense activities.</p>	<p>Evaluation of designs and plans</p> <p>Observation and reporting</p> <p>Verification of sites with SFD</p> <p>Verification of sites from revenue records</p>	<p>ASAP secretariat</p> <p>ASAP secretariat</p> <p>ASAP site selection team</p> <p>ASAP team</p>
b) Back waters, creeks, and rivers	<p>Damage to ecosystems</p> <p>Sedimentation in backwaters and creeks</p> <p>Contamination of water supplies</p> <p>Biodiversity loss</p> <p>Contributing to flooding potential</p>	<p>Find alternative sites. Creeks, rivers, wetlands, back waters, and riparian ecosystems (those sited next to a water body) are extremely sensitive. Water bodies provide important environmental services such as water storage, bird and animal habitations, flood control, and filtering toxins and nutrients from runoff.</p> <p><u>If no alternative is available:</u></p> <p>Set back any infrastructure as far as possible (minimum 500 m away from HFL, CRZ, backwaters, and water bodies/wetlands.</p>	<p>Evaluation of designs and plans</p> <p>Observation and reporting</p>	<p>ASAP team</p>

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		Re-vegetate as soon as possible.		
c) Hilly landscape with sloppy terrain	<p>Sedimentation of streams and surface water</p> <p>Contamination of ground and surface water supplies</p> <p>Cause erosion and damage to terrestrial and aquatic ecosystems during construction or use</p>	<p>Design facility and apply construction practices that minimize risks, e.g., use sand stacks or hay to control erosion during construction.</p> <p>Pay particular attention to potential erosion and redirection of water flows during design and construction.</p> <p>Re-vegetate as soon as possible.</p> <p>Maintain protection features during design and construction.</p>	<p>Evaluation of designs and plans</p> <p>Observation and reporting</p>	<p>Contractor(s)</p> <p>Contractor(s)</p>
d) Site prone to flooding	<p>Sites may get destroyed and/or subject workers or inhabitants to risk of injury or death</p> <p>Cause environmental damage from accidental release of toxic, infectious, or otherwise harmful material during flooding</p> <p>Contaminate drinking water</p>	<p>Find alternative sites or design infrastructure that is raised above flood plain, if possible.</p> <p>Design infrastructure to minimize risks, e.g., design with proper grading and drainage.</p> <p>Maintain design features such as drainage structures, during construction, and operation.</p> <p>Avoid constructing sanitation or other facilities that will use and store harmful materials at flood-prone areas.</p> <p>Choose dry sanitation options or closed disposal systems, instead of wet ones such as septic tanks or detention ponds.</p>	<p>Evaluation of designs and plans</p> <p>Observation and reporting</p>	<p>Design team</p> <p>Contractor(s)</p>
e) Area and/site prone to landslides	Expose workers or inhabitants to risk of injury or death	Find alternative sites on stable ground.	Evaluation of designs and plans	Design Team at ASAP

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
	<p>Cause environmental damage from accidental release of toxic, infectious, or otherwise harmful material</p> <p>Contaminate water supplies</p>	<p>Design infrastructure to minimize risk, e.g., plant trees all around the facility.</p> <p>Maintain protective design features.</p> <p>Avoid constructing sanitation or other facilities that will use and store hazardous or bio-hazardous materials at landslide-prone sites.</p> <p><u>If the above is not possible:</u></p> <p>Design storage area so that hazardous materials are stored in leak-proof containers.</p> <p>Choose dry sanitation options or closed disposal systems, instead of septic tanks.</p>	<p>Observation and reporting</p>	<p>Contractor</p>
<p>f) Felling of trees for clearing land as well as for materials for construction and refurbishment</p>	<p><u>Loss of trees and vegetation may lead to:</u></p> <p>Disaster-related issues (i.e., soil erosion, landslides)</p> <p>Lack of ventilation and shading to students and teachers</p>	<p>Consider alternate options to reduce the loss of trees and vegetation.</p> <p>A green belt will be raised with native tree species in vacant spaces at the CSP site (in the case of new plot) and near the boundary wall of educational institutes, if site is within the educational institute.</p> <p>Plant the same species of trees and vegetation as compensatory measures.</p> <p>Minimize the use of wood for construction.</p> <p>Use local materials as much as</p>	<p>Maintenance of survival rate for trees planted</p>	<p>Construction team and ASAP site team and Contractor(s)</p>

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		<p>possible. Construction materials such as stone dust, sand, etc. should be obtained from licensed quarries only.</p> <p>Innovations shall be integrated in the design plan.</p> <p>Contractor shall supply kerosene or LPG at camps and restrict cooking and heating using firewood.</p> <p>Ventilation in CSP/training center should be provided as per specifications in building codes.</p>		
g) Workers' welfare facilities at the construction sites	Lack of proper workers' welfare facilities including toilets, canteen, first aid, etc. may lead to social issues within CSP construction sites and result in the lack of workers' satisfaction and safety.	<p>Workers' welfare facilities will be included in the design and pre-construction plan.</p> <p>Temporary toilets with washing facility will be provided for construction workers.</p>	Check for such facilities on construction site	<p>ASAP staff/representative supervising the contract work</p> <p>Contractor</p>
h) Wastewater and solid waste generation, collection, and disposal facilities at workers' camp	The non-availability of wastewater collection, treatment, and disposal facilities will lead to sanitation problems and vector diseases.	At the time of workers' camp planning provisions, septic tank/soak pit have to be made for wastewater collection and disposal. Similarly for solid waste, collection bins, and disposal arrangements need to be finalized.	Check for such facilities at construction site	<p>ASAP staff/representative supervising the contract work</p> <p>Contractor</p>
i) Disaster management	Extreme climate (e.g., cyclone, storm surge), natural disasters (e.g., earthquake), etc. and fire may cause damages to lives and properties.	<p>Adoption of appropriate adaptation and disaster risk reduction strategies, emergency preparedness, and recovery, training/orientation programs for teachers and students on climate change, disaster and earthquake, etc.</p> <p>Construction of disaster/cyclone shelters at CSP sites to cover the urgent needs of community, students,</p>	Disaster Management Plan for each CSP	ASAP Safeguard officer

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		<p>and teachers. CSP building construction and refurbishment of new buildings should be designed and constructed in such a way so that these are disaster and earthquake resilient or “climate-proof”.</p> <p>Create awareness among teachers and students about natural calamities and extreme climatic conditions.</p> <p>Fire safety management and mock drills</p> <p>Ensure emergency equipment and facilities like fire extinguishers/water hose, first aid boxes, whistles, torch-lights, etc. at construction camp site.</p>		
2. DESIGN PHASE				
<p>a) Provision of health and sanitary services in CSPs and training centers</p>	<p><u>Untreated or insufficiently treated sewage would result in:</u></p> <p>Contaminated drinking water (ground and surface)</p> <p>Spread of diseases</p> <p>Degraded aquatic ecosystems</p>	<p>Sanitary facilities will be provided, as per requirements of building codes and local municipal authorities.</p> <p>Obtain building certification standards and requirements of the local authority.</p> <p>Avoid sites where water table is high or underlying geology makes contamination of groundwater likely.</p> <p>Choose dry sanitation options or closed disposal systems instead of wet ones such as septic tanks or detention ponds.</p> <p>Ensure adequate and maintained</p>	<p>Check whether there is building certification for the CSP sanitation facilities.</p> <p>Check whether there is adequate number of sanitary facilities provided with respect to the student population.</p>	<p>ASAP Safeguard Officer</p> <p>Contractor(s)</p>

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		<p>sanitary facilities.</p> <p>Maintain required ratio of male/female toilets.</p> <p>Maintain the drainage system in order to avoid water logging.</p>		
b) Construction of science laboratory	<p>Exposure of workers or students to toxic, carcinogenic, and teratogenic materials such as heavy metals, dyes, solvents, acids, etc.</p> <p>Lack of properly designed disposal mechanisms for chemical waste may lead to contamination of surface and ground water resources.</p> <p>Lack of safety measures in the design will lead to fire and increase occupational safety hazards.</p>	<p>Design with proper storage, handling, and treatment facilities.</p> <p>Avoid site near wetlands or water bodies.</p>	Review the design plans and inspect the foundation of the building initially.	<p>ASAP design team and safeguards team</p> <p>Contractor(s)</p>
3. DEMOLITION PHASE				
a) Refurbishment /renovation of existing buildings for CSPs	Spoil materials generated would obscure the landscape and may pose a health risk to students and the surrounding community.	<p>Disposal of solid waste according to the guidelines of the local authority.</p> <p>Make arrangements with the local authority for disposal of waste.</p> <p>Demarcate an area for waste collection within the construction sites and practice waste minimization practices such as recycling and composting.</p>	Spot check and site observations on a quarterly basis.	ASAP site supervising team and Contractor(s)
b) Safe handling of asbestos	Health and safety hazards with loose asbestos fibers for the workers	<p>(i) Follow the guidelines given in the ESMF:</p> <p>Where needed, only bonded asbestos cement sheeting that contains less than 20% of asbestos</p>	The ASAP site team should ensure that sheets containing less than 20 % of asbestos are used, if at all unavoidable	ASAP site team and Contractor(s)

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		<p>should be used in any construction under this project</p> <p>(ii) The environmental specialist of the ASAP secretariat will closely monitor handling, transportation, and storage at site and national/international regulations will be complied with.</p>		
c) Traffic management plan	Spoil materials generated due to construction will need to be transported to the disposal site. This may lead to traffic congestion and inconvenience to local population on roads surrounding the CSP sites.	The contractor, in consultation with the ASAP supervising team, will prepare a traffic management plan for transport of spoils and debris. This traffic management plan will ensure no traffic congestion on surroundings due to project activities.	Surrounding roads	ASAP supervising team at site
4. CONSTRUCTION PHASE				
a) Construction of CSPs(new construction) within already existing school premises	<p>Lack of solid waste management on the site can lead to lack of general cleanliness due to waste material generated as a result of demolition of old buildings.</p> <p>Waste material will be hazardous to children's health and safety (i.e., injuries from corroded metal waste).</p>	<p>Make arrangements with the local authority on disposal of solid waste generated during construction.</p> <p>Observations on cleanliness and good housekeeping practices onsite.</p> <p>Demarcate waste storage area in operation.</p> <p>Under no circumstances should the solid waste be burnt on site.</p>	<p>Solid waste storage is demarcated.</p> <p>All construction solid waste removed at the end of the construction.</p>	<p>ASAP supervising team at site</p> <p>Contractor</p>
	Dust generation during construction activities may impact workers and community.	<p>Wet down and spray water in construction, as required.</p> <p>Take steps to avoid dust emissions during loading and unloading of construction materials.</p>	<p>Observation –controlled dust emissions and the spraying of water</p> <p>Check whether construction materials are stored properly to avoid dust emission.</p>	<p>ASAP site team</p> <p>Contractor(s)</p>

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
	Transportation of construction materials may block access roads and may lead to accessibility problems.	<p>Construction materials and machinery should not be placed in a manner that blocks any access roads or paths.</p> <p>Unloading of construction materials should be carried in a manner and time so as to avoid blockage of roads/paths.</p> <p>Waste must not be placed on the roads.</p>	Observation and field check	ASAP site supervising team and Contractor(s)
	Construction noise can disturb surroundings and the school environment.	Conduct work during daytime and, if possible, during non-school hours. Adhere to noise levels stipulated under the Noise Pollution (Regulation and Control) Act, 1990 and adopt mitigation measures such as portable noise barrier and regular monitoring of noise levels.	Noise level during day time 55 dB(A) and night time 45 dB(A) should be maintained.	ASAP site team Contractor(s)
	Injury due to lack of occupational safety measures and also health risks	<p>Contractor should encourage workers to use personal protective equipment to avoid injuries.</p> <p>First-aid provisions will be made available on site.</p>	<p>Check for the existence of adequate first-aid measures in the premises.</p> <p>Check whether the workers are using personal protective equipment.</p>	ASAP site team Contractor(s)
	<p><u>Occupational safety issues:</u></p> <p>Noise generated from cement pre-casting machines and concrete pilling may pose an occupational health risk.</p> <p>Activities such as loading and unloading, shuttering metal poles, and handling of heavy objects may</p>	<p>Train maintenance and operations staff to monitor and repair machines so that it will increase the efficiency of the machines while reducing vibration and noise.</p> <p>Noise levels should be maintained within stipulated limits.</p> <p>Train workers on occupational risks</p>	<p>Check whether all workers are inappropriate safety attire.</p> <p>Proper maintenance of sanitation facilities</p>	ASAP site team Contractor(s)

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
	<p>result in accidental injury or crushing.</p> <p>In the absence of non-functional sanitary facilities, health issues may arise among students.</p>	<p>involved in lifting heavy construction equipment.</p> <p>Train the workers on managing risks, emergencies and on first-aid.</p> <p>Ensure that sanitation facilities are working.</p>		
b) Water for construction	Setting up of a storage facility will require water for consumption and cleaning of equipment.	<p>The contractor should arrange water for construction from local municipal authorities or else permission should be obtained from the Central/State Ground Water Board, if ground water is planned to be withdrawn.</p> <p>The water quality should be checked from a laboratory before construction.</p> <p>To ensure minimal wastage of water, train maintenance and operations staff to monitor and repair leaks from cracked containment structures, broken pipes, faulty valves, and similar structures.</p> <p>A suitable pump and overhead tank should be constructed taking into account the daily requirement of water to ensure uninterrupted water supply.</p>	<p>Ensure water extraction permission or commitment letter from the local municipality for water supply for construction</p> <p>Periodic water quality testing (also indicated under construction)</p>	ASAP site team and contractor(s)
	Unprotected wells can lead to safety and health issues.	Dug well(s) within premises should have a protective wall, as well as appropriate covering, to prevent external material from entering the well.	Well-protected water sources in place and maintained	ASAP site team and Contractor(s)

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
	Arsenic contamination in drinking water may cause health-related problems.	<p>Analyze local surrounding arsenic test results and recommend for tube wells or not.</p> <p>Adopt rain water harvesting, filter, and piped water supply.</p> <p>After installation of tube-wells, presence of arsenic in the drinking water will be tested and be used only if it satisfies the Drinking Water Standards (IS: 10500).</p>	Water quality test reports	ASAP site team and Contractor(s)
c) Waste oil from construction camps and construction sites	If not properly handled, discarded lubricants and grease may cause water and soil pollution at construction sites.	<p>Waste oil generated due to vehicle and machinery maintenance should be stored in drums. These drums should be stored on impervious surfaces. The oil should be sold to authorized recyclers for recovery.</p> <p>As far as possible, vehicles should not be maintained at sites. These should be sent to garages in the city, as CSP sites will be mostly near urban centers.</p>	Stored oil and grease	Contractor(s) and site supervising staff of ASAP team
d) Wastewater and solid waste collection and disposal at workers' camp	The untreated wastewater and non-disposal of solid waste will lead to sanitary problems and vector diseases. Further, community residing in the vicinity may file strong objections to civic authorities.	The contractor has to ensure that wastewater from sanitation facilities (temporary toilets and kitchen facilities) is properly diverted to septic tanks/soak pits. The solid waste bins are regularly emptied and waste disposal is ensured at identified site. The solid waste disposal site will be identified in consultation with supervising staff.	Solid waste collection bins, wastewater reception facilities (septic tanks/soak pits, etc.)	Contractor(s) and site supervising staff of ASAP team

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
e) Traffic management plan	The transportation of construction materials, debris, and spoils from construction site may lead to traffic congestion in the surroundings of CSP construction sites.	The contractor, in consultation with the ASAP supervising team, will prepare a traffic management plan for transport of spoils and debris. This traffic management plan will ensure that there is no traffic congestion on surroundings due to transportation of construction materials to the CSP construction site and transportation of spoils and debris from the construction site to the disposal site.	Surrounding roads	ASAP supervising team at site
f) Safe handling and use of asbestos	Health and safety hazards with loose asbestos fibers for the workers	<p>The use of asbestos will be avoided as far as possible. In case it is unavoidable, the following mitigations will be followed:</p> <p>(ii) Follow the guidelines given in the ESMF. Where needed, only bonded asbestos cement sheeting that contains less than 20% of asbestos should be used in any construction under this project</p> <p>(iii) The environmental specialist of the ASAP secretariat will closely monitor handling, transportation, and storage at site and national/international regulations will be complied with.</p>	The ASAP site team and environmental expert of the ASAP safeguard team should ensure that sheets containing less than 20% of asbestos are used, if at all unavoidable.	ASAP site team, ASAP environmental expert, and Contractor(s)

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
g) Onsite emergency plan	Handling of emergencies on account of accidental scenarios at CSP construction site	<p>The contractor, in consultation with ASAP safeguard officer, will prepare an onsite emergency plan for accidental scenarios such as fire, fuel oil, LPG spillage, leakage of any flammable gas such as acetylene, etc.</p> <p>Necessary fire protection measures at site shall be made as well as details of contacts with nearest fire station will also be recorded.</p>	Regular updation of onsite emergency plan during construction phase	ASAP safeguard expert and Contractor(s)
h) Handling and treatment of wastewater generated from construction site	The wastewater generated from construction site, if not properly handled and treated, may cause unhygienic conditions at site and may cause mosquito breeding and contamination of ground water.	The contractor will prepare a drainage plan for the site for the construction phase. The storm water will be properly diverted to natural drainage channel. The waste generated due to vehicle and equipment washing and curing of concrete shall be properly collected and diverted to septic tank or may be collected in temporary constructed lined and covered underground sump. From this sump this wastewater may be transported to the nearest sewage treatment plant through tanker.	Wastewater collection, handling, and transport	ASAP safeguard expert and Contractor(s)
5. OPERATION AND MANAGEMENT PHASE				
a) Solid waste management: (i) domestic solid waste disposal	<p>Lack of management of domestic wastewater may cause health risks and obscure the landscape.</p> <p>Since solid waste collection will not be on a daily basis, there is risk of solid waste piling up on site.</p> <p>These can lead to an increase in vector population and health risks.</p>	<p>Ensure demarcated solid waste storage area with source separation for organic waste and other domestic non-organic waste. This storage facility should be able to accommodate solid waste up to 7 days.</p> <p>The contractor and local staff of ASAP project should tie up with local municipal authorities for waste disposal.</p>	<p>Construction waste disposed of on a weekly basis and as per schedule in arrangement with the local authorities</p> <p>Cleanliness and good housekeeping practices on site</p> <p>Review solid waste management plan during</p>	ASAP safeguard expert and Contractor(s)

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		Construction waste should be recycled as far as possible.	site visits.	
(ii) domestic liquid waste disposal	Lack of disposal of the domestic wastewater will result in health issues to the worker.	Ensure that the domestic wastewater is directed to soakage pits in conformance with local authority guidelines. If possible, domestic liquid waste may be connected to a local sewer line available near the site or to a package sewage treatment plant.	Check the design plans for soak pits and septic tanks.	ASAP safeguard expert and Contractor(s)
(iii) Hazardous waste and e-waste disposal	<p>Lack of a disposal mechanisms for hazardous waste from laboratories may lead to pollution of surface water resources and land due to leaching</p> <p>Potential for increased health risk of students and teachers</p> <p>Lack of a disposal mechanism for e-waste (computer and IT-based waste management)</p>	<p>The ASAP safeguard officer should identify the CSPs/training centers generating hazardous waste. For these centers, hazardous waste disposal authorization should be obtained from the SPCB, as per the requirements of Hazardous Waste (Management and Handling) Rules, 2011.</p> <p>The waste should be transported to the nearest hazardous waste disposal site for safe disposal.</p> <p>The e- waste should be disposed of as per provisions of the Waste (Management and Handling) Rules, 2011 of MOEF.</p>	Checking for adoption of existing disposal guidelines and plans	ASAP safeguard expert and Contractor(s)
b) Waste from science laboratories	<p>Lack of properly designed disposal mechanisms for hazardous waste and fumes from laboratories may lead to contamination of surface and ground water resources.</p> <p>Lack of safety measures in the design of CSPs will lead to fire and increase occupational safety hazards.</p>	<p>Ensure regular maintenance of gas tubes, taps to ensure the maintenance of fume cupboards.</p> <p>Provision of safety measures in the design such as good ventilation and thermal circulation</p> <p>Take measure to install fire extinguishers.</p>	Checking for adoption of existing disposal guidelines and plans	ASAP safeguard expert and Contractor(s)

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		<p>Display the laboratory safety manual for students and teachers.</p> <p>Provision of safety wear – face masks, goggles, noise isolating ear plugs.</p>		
c) Sanitary facilities	<p><u>Discharge of untreated or partially treated sewage and lack of maintenance of sanitary facilities may lead to:</u></p> <p>Contamination of drinking water (ground and surface)</p> <p>Spreading of diseases among the student populations and the surrounding community</p> <p>Degradation of aquatic ecosystems</p>	<p>Ensure proper maintenance of sanitary facilities.</p> <p>Train maintenance and operation staff to monitor and repair leaks from cracked containment structures, broken pipes, faulty valves, and similar structures.</p> <p>Provide a suitable pump and overhead tank taking into account the daily requirement of water to ensure uninterrupted water supply for the sanitary facilities.</p> <p>A minimum distance of 15 meters should be maintained between a tube-well and a latrine to prevent contamination of water resources.</p> <p>In case of shallow hand tube-wells, this distance should be 20 meters as horizontal filters are used in these types of tube-wells.</p> <p>Provide separate toilets situated at an adequate distance between boys and girls washrooms.</p> <p>Water supply is available in the toilets.</p>	Observation and site reports to check the proper maintenance of pipes in sanitary facilities	ASAP CSP management team

Environmental Management Plan	Environmental Impacts	Mitigation Measure(s)	Monitoring Sources	Responsible Party(s)
		One latrine should be designed for about 30 pupils (20 for girls and 40 for boys).		
d) Canteen	Lack of domestic waste management may lead to land and water contamination and increase vector borne diseases and obscure the aesthetic beauty of the CSP, the environment of the educational institute, and give rise to odor.	Domestic waste should be handled, stored, and transported for disposal, as per provisions Municipal Waste (Management and Handling) Rules, 2000.	The waste should be segregated and disposed of with the support of the local municipality.	ASAP CSP management team
	Lack of training in canteen commodity handling can lead to wastage and hygiene issues.	Provide training in food handling to minimize wastage. Ensure that food handlers maintain personal hygiene and inform the supervisor in case an employee is sick or has an injury. Maintain good housekeeping practices as per the Food Hygiene regulations.	Hygienic conditions at the canteen and training to the canteen management team	ASAP CSP management team

ADB = Asian Development Bank, ASAP = Additional Skill Acquisition Program, CRZ= Coastal Regulation Zone, CSP= community skills park, dB = decibel, ESMF = environmental and social management framework, HFL= highest flood level, IT = information technology, LPG= liquefied petroleum gas, MOEF = Ministry of Environment and Forests, SFD = State Forest Department, SPCB = State Pollution Control Board, SPS= Safeguard Policy Statement.

Source: Asian Development Bank.

ANNEX 8

HANDLING, TRANSPORTATION, AND USE OF ASBESTOS

A. Asbestos Use in Construction – Guidelines

1. The main risks of exposure to asbestos is where fibers are easily made air-borne under little pressure, such as cutting of Asbestos Cement (AC) products that can release fibers. Renovations, repairs, and decommission of buildings containing AC products such as roof sheets can pose a risk.

2. Health hazards from breathing asbestos dust include:

- (i) asbestosis – a lung scarring disease; and
- (ii) form of cancer such as mesothelioma.

3. In AC corrugated sheets, the fiber is present in non-friable forms, which means that fiber is embedded in the cement and cannot be easily air-borne. Such materials are known to have little health risk once (a) the roof has been completed and (b) given that material is in good condition and not disturbed.

4. Although the World Bank Group's Good Practice Note on Asbestos and its Health and Safety Guidelines do not encourage the use of asbestos products in construction, in light of the practical uses for construction of community skills park infrastructure, the costs, its availability in local markets, and lack of feasible alternatives, the use of asbestos may be the most feasible option at some worksites. However, to minimize the health risks that asbestos products do pose, the following guidelines adapted from the World Bank's Health and Safety Guidelines and other sources are recommended to be followed. The use of the International Labour Organization convention guidelines as stated above are recommended for the safe use of asbestos.

5. The International Labour Organization asbestos convention requirements include:

- (i) Work clothing to be provided by employers;
- (ii) Double changing rooms and wash facilities to prevent dust from going home on street clothes;
- (iii) Training of workers about the health hazards to themselves and their families;
- (iv) Periodic medical examinations of workers;
- (v) Periodic air monitoring of the work environment, with records retained for 30 years;
- (vi) Development of a work plan for demolition work, to protect workers and provide for proper waste disposal; and
- (vii) Protection from retaliatory and disciplinary measures of workers who remove themselves from work because they believe that the use of asbestos, beyond a permissible limit, presents a serious danger to health.

B. Construction Phase

6. To minimize the risk of damage of AC sheets for roofing, transportation of material must be done with care. Where possible, sheets should be transported in airtight containers or with dust covers.

7. During installation of sheets, ensure that the damage is minimized. Use of power tools to drill holes that may release particles needs to be kept to the minimum.

8. Use a protective sheet (i.e. insulation foil) between the AC sheets and the classrooms and lecture theaters to reduce the risk of minute particles from entering the rooms.

9. Workers who handle and install AC sheets should take precautions to minimize exposure by wearing protective masks and showering to minimize the spread of dust. Work clothes used during the installation of sheets should be washed and workers need to change into clean clothes before leaving the construction site.

10. Workers should be made aware of the risks of AC sheets, and made aware of how to minimize these risks.

C. Decommissioning

11. Contractors should dispose of waste containing asbestos in a manner that does not pose a health risk to workers concerned or the nearby population. Contractors should consult the State Pollution Control Board to obtain guidance on the proper disposal of material.

12. Contractors should be encouraged to develop an asbestos management plan that identifies the content (whether it is in friable forms and has potential to release fibers), and proper removal procedures.

13. During the removal of AC sheets, workers should wear proper protective gear such as masks and shower to prevent the spread of dust. Clothes worn during this process should be washed and workers should change into clean clothes prior to leaving construction site.

14. Workers who are, or have been, exposed to asbestos in their occupational activities should be provided with medical examinations as these are necessary to supervise their health, and to diagnose occupational diseases caused by the exposure to asbestos. For the prevention of disease and functional impairment related to exposure to asbestos, all workers assigned to work involving asbestos exposure should be provided with:

- (i) a pre-assignment medical examination;
- (ii) periodic medical examinations at appropriate intervals (at least every 3 years);
- (iii) other tests and investigations, in particular chest radiographs and lung function tests, which may be necessary to supervise their state of health in relation to the occupational hazard and to identify early indicators of diseases caused by asbestos; and
- (iv) a copy of their medical record.

15. The above requirements will be based on the type of construction and its magnitude.

ANNEX 9

ENVIRONMENTAL SAFEGUARD REQUIREMENTS IN CONTRACTS

1. The following environmental safeguard requirements are to be included in contracts as part of the environmental management plan (EMP).

A. General

2. The contractor and contractor's employees adhere to the mitigation measures set down in the EMP and take all necessary measures required to prevent harm, and to minimize the impact of operations on school, community skills parks, and training centers.

3. The contractor shall avoid the use of heavy or noisy equipment/activities during teaching hours at the educational institute.

4. The contractor, on completion of construction, should take full responsibility in ensuring clean and safe construction premises.

B. Disposal of Solid Waste and Debris

5. All construction debris and residual spoil material including any left-over earth shall be disposed of by the contractor at a location approved by the local municipal bodies.

6. The debris and spoils shall be disposed of in such a manner that (i) waterways and drainage paths are not blocked, (ii) the disposed materials are not washed away by floods, and (iii) such materials should not cause public nuisance.

C. Protection of Ground Cover and Vegetation

7. Contractors shall provide necessary instructions to his workers not to destroy ground vegetation covers unnecessarily.

D. Soil Erosion

8. Contractors shall take all steps necessary to ensure the stability of slopes, including those related to temporary works.

9. Work that will lead to heavy erosion shall be avoided during the raining season. If activities need to be continued during rainy season, prior approval must be obtained from the implementing agency and local authorities by submitting a proposal on actions the contractors will undertake to prevent erosion.

10. The work, permanent or temporary, shall consist of measures to control soil erosion, sedimentation, and water pollution. Typical measures would include grass cover, slope drains, retaining walls, etc.

E. Labor Camps (Construction Workers' Camp)

11. Labor camps shall be provided with adequate and appropriate facilities for disposal of sewerage and solid waste. The sewage systems shall be properly designed, built, and operated

so that no pollution to ground or adjacent water bodies/watercourses takes place. Garbage bins shall be provided in the camps and regularly emptied. Garbage should be disposed of in a hygienic manner. The contractor will maintain overall good housekeeping in the construction workers' camp and construction site. For this, there will be proper storage of construction materials and waste oil generated will be stored in drums. The construction materials and machinery should be parked at the allocated places in the camp and construction site.

12. Contractors shall ensure that all camps are kept clean and hygienic. Necessary measures shall be taken to prevent breeding of vectors and diseases.

13. Contractors shall report any outbreak of infectious disease of importance at a labor camp to the Medical Officer of Health or to the Public Health Inspector of the area immediately.

14. Contractors shall remove the labor camps fully after its need is over, empty and/or close septic tanks, remove all garbage and debris, and clean and restore the area back to its former condition.

F. Dust Management

15. To prevent dust pollution during the construction period, the contractors shall carry out regular watering of the construction site and shall cover onsite material stocks to prevent dust and other particles from being airborne.

16. All vehicles delivering materials to the sites shall be covered to avoid spillage and dust emission.

G. Health and Safety

17. Contractors shall take necessary actions to prevent breeding of mosquitoes at places of work, labor camps, material stores, etc. Stagnation of water in all areas including gutters, used and empty cans, and containers shall be prevented.

18. Contractors shall keep all places of work, labor camps, plus office and store buildings, clean and devoid of garbage to prevent breeding of rats and other vectors such as flies.

19. Construction vehicles, machinery, and equipment shall be used and stationed only in designated areas of the work site and should not pose any danger to students, teachers, and administrative staff.

20. Material stockpiles shall be located sufficiently away from the areas frequently used by students, teachers, and administrative staff.

21. Construction sites should be fenced-off temporarily in order to avoid any risk posed to students, teachers, and administrative staff.

22. Contractors shall enforce vehicle speed limits for construction vehicles in areas near and inside construction premises.

H. Sourcing of Raw Material

23. The contractors shall ensure that all raw materials such as sand, rubble, metal, and timber required for construction are sourced from licensed sources. If the contractors plan to operate own quarries/sand pits, all necessary approvals should be obtained from relevant authorities.

I. Inclusion of Environmental Management Plan in Contract Document

24. In order to take care of all probable adverse impacts, the EMP table prepared shall be made part of contract document.

ANNEX 10

ENVIRONMENTAL MANAGEMENT PLAN COMPLIANCE REPORTING TABLE

Name of person filling the table:

Date of visit:

Name of Subproject, and Location Details:

Contractor's name and details:

Construction Activity (from EMP)	Mitigation Measures proposed in the EMP (From EMP)	Describe level of compliance	Reasons for non-compliance	Suggestions for improvement	Any other Remarks

ANNEX 11

NATIONAL AMBIENT AIR QUALITY STANDARDS

S. No.	Pollutant	Time weighted Average	Concentrations in Ambient Air	
			Industrial, Residential, Rural, and Other area	Ecologically-sensitive Area (Notified by Central Govt.)
1	Sulphur Dioxide (SO ₂) µg/m ³	Annual * 24 hours**	50 80	20 80
2	Nitrogen Dioxide (NO ₂) µg/m ³	Annual * 24 hours **	40 80	30 80
3	Particulate Matter (size less than 10 µm) or PM ₁₀ µg/m ³	Annual * 24 hours **	60 100	60 100
4	Particulate Matter (size less than 2.5µm) or PM _{2.5} µg/m ³	Annual * 24 hours **	40 60	40 60
5	Ozone(O ₃) µg/m ³	8 hours** 1 hour**	100 180	100 180
6	Lead(Pb) µg/m ³	Annual * 24 hours **	0.50 1.00	0.50 1.00
7	Carbon Monoxide(CO) µg/m ³	8 hours** 1 hour**	02 04	02 04
8	Ammonia (NH ₃) µg/m ³	Annual * 24 hours **	100 400	100 400
9	Benzene (C ₆ H ₆) µg/m ³	Annual*	05	05
10	Benzo Pyrene (BaP)- particulate phase only µg/m ³	Annual*	01	01
11	Arsenic(As) µg/m ³	Annual*	06	06
12	Nickel(Ni) µg/m ³	Annual*	20	20

*Annual arithmetic mean of minimum 104 measurements in a year at a particular site taken twice a week 24 hourly at uniform intervals

** 24 hourly or 08 hourly or 01 hourly monitored values as applicable shall be compiled with 98% of the time in a year. 2% of the time they may exceed the limits but not on two consecutive days of monitoring

Source: Government of India, Ministry of Environment and Forests. 2009. Delhi.

ANNEX 12

**GENERAL STANDARDS FOR EFFLUENTS
(SCHEDULE IV: ENVIRONMENTAL PROTECTION RULES, 1986)**

Sl. No.	Parameter	Standards			
		Inland Surface Water	Public Sewers	Land for Irrigation	Marine Coastal Area
1.	Color and odor	*	*	*	*
2.	Suspended solids, mg/l	100	600	200	(a) For process wastewater-100 (b) For cooling water effluent 10% above total suspended matter of influent
3.	Particle size of suspended solids	Shall pass 850 micron IS sieve	-	-	(a) Floatable solids, max. 3mm (b) Settleable solid, max. 850 microns
4.	pH value	5.5 – 9.0	5.5 – 9.0	5.5 – 9.0	5.5 – 9.0
5.	Temperature	Shall not exceed 5 °C above the receiving water temperature	-	-	Shall not exceed 5 °C above the receiving water temperature
6.	Oil and grease, mg/l	10	20	10	20
7.	Total residual chlorine, mg/l	1.0	-	-	1.0
8.	Ammonical nitrogen, mg/l	50	50	-	50
9.	Total Kjeldahl nitrogen (as N), mg/l	100	-	-	100
10.	Free ammonia (as NH ₃), mg/l	5.0	-	-	5.0
11.	Biochemical oxygen demand (5days at 20 °C), mg/l	30	350	100	100
12.	Chemical oxygen demand, mg/l	250	-	-	250
13.	Arsenic (as As), mg/l	0.2	0.2	0.2	0.2
14.	Mercury (as Hg), mg/l	0.01	0.01	-	0.01
15.	Lead (as Pb), mg/l	0.1	1.0	-	2.0
16.	Cadmium (as Cd), mg/l	2.0	1.0	-	2.0
17.	Hexavalent chromium (as Cr ⁺⁶), mg/l	0.1	2.0	-	1.0
18.	Total chromium (as Cr), mg/l	2.0	2.0	-	2.0
19.	Copper (as Cu), mg/l	3.0	3.0	-	3.0
20.	Zinc (as Zn), mg/l	5.0	15	-	15
21.	Selenium (as Se), mg/l	0.05	0.05	-	0.05
22.	Nickel (as Ni), mg/l	3.0	3.0	-	5.0

23.	Cyanide (as Cn), mg/l	0.2	2.0	0.2	0.2
24.	Flouride (as F), mg/l	2.0	15	-	15
25.	Dissolved phosphates (as P), mg/l	5.0	-	-	-
26.	Sulphide (as S), mg/l	2.0	-	-	5.0
27.	Phenolic compounds (as C ₆ H ₅ OH), mg/l	1.0	5.0	-	5.0
28.	Radioactive materials (a) Alpha emitters, uc/ml (b) Beta emitters, uc/ml	10 ⁻⁷ 10 ⁻⁶	10 ⁻⁷ 10 ⁻⁶	10 ⁻⁸ 10 ⁻⁷	10 ⁻⁷ 10 ⁻⁶
29.	Bio-assay test	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent	90% survival of fish after 96 hours in 100% effluent
30.	Manganese (as Mn), mg/l	2	2	-	2
31.	Iron (as Fe), mg/l	3	3	-	3
32.	Vanadium (as V), mg/l	0.2	0.2	-	0.2
33.	Nitrate nitrogen, mg/l	10	-	-	20

Note: * All efforts should be made to remove color and unpleasant odor as far as practicable.

Schedule VI inserted by Rule 2 (d) of the Environment (Protection) Third Amendment Rules, 1993 notified vide G.S.R. 801 (E) dated 31.12.1993

Source: Pollution Control Acts, Rules and Notifications issued there under: Pollution Control Law (PCL)/2/1992, Published by CPCB.

ANNEX 13

NATIONAL AMBIENT NOISE LEVEL STANDARDS

Area Code	Category	Limits in Decibels (dB A)	
		Day Time	Night Time
A	Industrial	75	70
B	Commercial	65	55
C	Residential	55	45
D	Silence Zones	50	40

Source: Central Pollution Control Board, New Delhi.

Note: (1) **Day-time:** 6 AM to 10 P.M., **Night-time:** 10 PM to 6 AM.
(2) Silence zone is an area up to 100 m around premises such as hospitals, educational institutions, and courts.