**ENVIRONMENTAL MITIGATION AND MONITORING \_KIOSKS MON CASH**

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| **Action or component with the different tasks required to implement the action.** | **Description of Impact** | **Mitigation Measures** |
| ***Step 1 – Design: designing the structure of the kiosks.***  ***⌂1***  *3 (Construction involves water and sanitation) integrated in impact e).*  *5 (USAID Engineer construction design approval) integrated in impact a).*  *6 (adherence to national construction codes) integrated in impact b).*  *7 (local or national planning permissions) integrated in impact c).*  *25 (vulnerability to weather changes – floods) integrated in impact a).*  *32 (generate hazards or barriers) integrated in impact d).* | a) Failure due to earthquake, hurricane winds, floods, etc. and/or improper design.  b) Code infringement.  c) Work interruption/halt due to lack of permit.  d) Hazards or barriers for communities including pedestrians, motorists or persons with disabilities.  e) Adverse impacts of water and sanitation facilities. | a) Design failure:  - Take into account earthquake and hurricane wind resistance (potential forces, vibration) and climate change impacts (prolonged emersion due to unexpected floods) in project components. ***Light roofs and alternate construction materials will be encouraged.***  - Design created and reviewed by relevant qualified specialists and components specifications set to fulfil design requirements.  - Design reviewed by relevant structural licensed engineer (PE). ***NA, type of activities do not require PE review. However, MTPTC recommendations for earthquake construction must be taken into account.***  - Construction activities reviewed by USAID Engineer.  b) Construction infringement:  Apply higher of US or national codes.  c) Permits:  Obtain required permits. ***NA. However, the UCLBP, relevant Municipality and UN Habitat will be consulted so that locations don’t contradict with planning.***  d) Hazards of barriers:  Design includes, as relevant:  - No sharp or protruding edges.  - High visibility color.  - Accessibility requirements.  e) Water and sanitation facilities:  - Include rain water harvesting if feasible.  - Location of restrooms not to affect other facilities or services.  - Include sufficient hand washing stations and restrooms in proportion to expected number of users.  - Adequate wastewater systems that prohibit water table contamination (septic tanks, filtering, etc.). |
| ***Step 2 – Location: working with the community to determine suitable locations.***  ***⌂2***  *25 (vulnerability to weather changes – floods) integrated in impact b).*  *32 (generate hazards or barriers) integrated in impact c).* | a) Change existing environment or land use.  b) Improper location.  c) Introduce a public hazard. | Improper location:  Take into account that locations:  - Do not violate the right of road, access to public places/services, or private, commercial, residential properties.  - Not in the direct path of current or potential rainwater flow.  - Do not introduce hazards or barriers for pedestrians, motorists or persons with disabilities. |
| ***Step 3- purchase of materials: the acquiring of construction materials for activity.***  ***⌂3***  *13 (use of hazardous materials) integrated in impact b).*  *34 (expose workers to occupational hazards) integrated in impact b).* | a) Construction materials (sand, gravel, rocks, wood, etc.) degrade environment or have an adverse health impact.  b) Used materials will have an adverse health impact. | a) Construction material sources:  Rocks, sand, gravel, water, wood, etc. are not from illegal quarries, cause erosion, pollute water sources, deplete aquifers, or contribute to deforestation.  b) Materials adverse health impact:  Materials including paint, adhesives, etc. must not have an adverse health impact (non-toxic, inhalation and contact) during application or after setting. |
| ***Step 4- execution: the building and installation of the kiosks.***  ***⌂4***  *16 (airborne particles generation - dust) integrated in impact c).*  *32 (generate hazards or barriers) integrated in impacts a).*  *33 (workers occupational hazard) integrated in impact c).*  *35 (intervention increase existing noise levels) integrated in d).* | a) Site is a hazard to communities including residents, pedestrians, motorists etc.  b) Activities introduce workers occupational hazard.  c) Works generate polluting airborne particles.  d). Works increase noise levels. | a) Hazards to communities:  - Create clear and protective site perimeter during works.  - Install warning signs around and in site.  - Prevent undesired access to holes, ditches or harmful areas (fencing, covering, etc.).  - Deploy flaggers to warn and control movement and traffic around and in the site when required.  - All installed components must be properly attached and safely secured to prevent fall downs.  - At hand sanitary facilities (porta-potties, latrines, hand washing stations, etc.) are available for workers.  b) Occupational hazard:  - Workers must always be trained on and wear Personal Protective Equipment (PPE) and use appropriate safety gear and harnesses on site.  - Site does not include sharp edges or dangerous areas and if so, they must be clearly marked.  - The contractor has a health and safety plan.  c) Airborne particles:  - Pre-soak digging areas.  - Spray water on dust prone areas and dry excavated soil.  - Pour cement and similar materials slowly to reduce airborne particles.  - Cover sand (similar materials also) and/or create a perimeter.  d) Increase noise levels:  - Any site mechanical activities carried out between 7:00 am and 7:00 pm. However, if activity requires work outside this timeframe, obtaining the potential affected residents consent is required. |
| ***Step 5- site clean-up/disposal of construction waste: after activity implementation the site will be thoroughly cleaned.***  ***⌂5***  13 (disposal of hazardous materials) *is integrated in impact c).* | a) Pre, during and post works waste and debris create hazards.  b) Leaving waste/debris onsite for prolonged periods will create the conditions to dump residential waste at the site.  d) Hazardous waste disposed during and/or after works. | a) Site waste:  - Pre-works waste/debris is disposed during the site preparation phase.  - During and post works waste/debris is disposed  - Disposal is done properly (recycled or hauled to landfill/dumpsite).  b) Prolonged waste/debris disposal:  Disposal is done quickly in order to prevent any inconvenience to communities as well as limit the possibility of residential waste dumped at site.  d) Hazardous waste:  - All hazardous waste in site waste mitigation a) above is disposed to national relevant landfills.  - Train and educate relevant personnel on the proper handling and disposal of potential future hazardous waste. ***NA.*** |
| ***Step6- use, operations and maintenance: ensuring training of agent to maintain the kiosk.*** | a) Failure of project components due to lack of operations and maintenance plan. | a) Operations and Maintenance:  Train relevant personnel (municipality, GoH entities, CBOs, community leaders, maintenance personnel) on project operation and maintenance and establish a protocol between them and the contactor to ensure warranty application and subsequent parts/repair support. ***The kiosk’s agent will be trained by Digicel on the operation and maintenance.*** |