

Construction material-based methodology for contingency base selection

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In an era of global responsiveness, there is a continuing need for agencies and organizations to set up temporary contingency bases (CB) of operations in foreign nations. Examples of such CBs include epidemic hospitals, refugee camps, natural disaster response headquarters, and temporary military installations. The decision whether to import all construction material, to build entirely of local materials, or to purchase a combination of imported and local materials is a strategic decision. The outcome of such a decision will affect construction costs, maintenance costs, security of the facility personnel, and the local sentiment towards the CB occupants. In order to streamline the process, planners often choose to acquire all material and equipment needed to construct CBs in their home nation and then ship it to the deployment site.

There are advantages, however, to building CBs with local resources. By procuring materials locally, an extended supply chain does not need to be maintained and defended. Local materials are often more cost efficient and available in less time than globally transported materials. Purchasing locally and leaving behind structures that can be used and maintained by the indigenous population can improve the economic outlook and sentiment of the local community. In the article [Construction Material-Based Methodology for Contingency Base Selection](#), the authors present a methodology for remotely evaluating the feasibility of utilizing local resources for CB [construction](#). The reader is guided through the process of using available data from the internet to determine the kind and quantity of materials available, the transportation networks to transport

materials from local sources to the construction site and how to use proximity factor analysis to combine all the variables into a single metric that demonstrates the feasibility of utilizing specific [materials](#) from specific regions. Planners can then choose to modify their CB site plans or location to maximize the use of available indigenous resources.

More information: Ghassan K. Al-Chaar et al, Construction Material-Based Methodology for Contingency Base Selection, *The Open Construction and Building Technology Journal* (2017). [DOI: 10.2174/1874836801711010237](#)

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