Beyond 'coverage'

An integrated approach to rural water supply and sanitation projects and programmes

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Full integration of projects and programmes for rural water supply and sanitation has yet to take place in most developing countries, thus contributing to a situation in which long-term success in the sector has been difficult to demonstrate. It is suggested that full integration in individual countries will require reorientation of project planning procedures, and the development of a community support programme (CSP) to provide backup to communities after project completion. Ultimately, full integration of projects and programmes is an iterative process, requiring the evaluation of past efforts in the field. Experience in the International Drinking Water Supply and Sanitation Decade (1981–90) has demonstrated that coverage alone – as the de facto indicator of success – is not sufficient (particularly in rural areas). The 1990s represent a fresh chance to modify indicators for success, and to go beyond coverage by integrating projects and programmes for rural water supply and sanitation.

Introduction

Why integrate projects and programmes?

In developing countries, there is a continuing need to fully integrate projects and programmes in rural water supply and sanitation to take advantage of the strengths of each, and to minimize the inherent weaknesses that are present when they are not closely associated. Projects have historically been strong when it comes to the construction of physical facilities, because their objectives, activities and outputs generally focus on construction, and because their budgets have been self-contained for this purpose (often based upon grants or financing from external support organizations). Common examples include projects for piped water supply in rural communities. Programmes, on the other hand, because of their continuing nature, have an advantage over projects when it comes to support activities for training, community participation, spare parts management and control. Some programmes for latrine construction and hygiene education have been exemplary in this regard.

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Programmes have historically been at a disadvantage because their activities have been spread thinly across wide geographic areas, often without sufficient focus to create a major impact. Programme budgets, instead of being self-contained, have had to compete annually with those of other sectors for scarce government funding. Programmes have seldom had resources sufficient to carry out major construction activities as well as their other appointed tasks and have often been combined with programme efforts in other sectors (for instance, primary health care and rural sanitation).

Within some implementing agencies there seems to be little distinction made between projects and programmes for rural water supply and sanitation because these terms are used almost interchangeably. For this discussion, however, the basic differences centre in two areas: (i) length of commitment, and (ii) outlook toward beneficiaries. In regard to length of commitment, projects always end (sooner or later), but programmes can (in theory) continue forever. In terms of outlook, a project (when funded) has one or more fixed target communities, while a programme is available (within budgetary constraints) to all communities, institutions, or (sometimes) families that qualify.

Project failures have been common

Projects alone have an inherent weakness in terms of their length of commitment, because they end (by definition) after construction is completed. Yet successful implementation of rural water supply and sanitation mandates continued support to communities for some time after project completion, a function that support programmes can provide.

Examples of past project failures have been common – as evidenced by non-functional equipment, public taps broken or left unfitted, and pipes and other materials damaged or diverted to unplanned uses. Scenes of community members passing by latrines on their way to traditional defecation areas serve to remind us that some facilities are not being utilized. In fact, projects often fail to achieve the three indicators required to demonstrate sector success (coverage, functioning, and utilization). Two notable factors which have been shown to inhibit success are (i) the conceptual gap between local people (beneficiaries) and planners, and (ii) the recurring over-emphasis among implementing agencies upon population coverage, rather than a clear focus on facility design and system support in cooperation with local institutions to ensure long-term functioning and use of facilities (Chandler [1]).

Support programmes are required

The lack of integrated support programmes (eg for community participation in design, local institutional development, manpower training at the local level, spare parts backup and distribution, and hygiene education) has been identified as an additional factor contributing to sector failures in rural areas and small communities (Chandler [1,2]). It is not enough to assume that local people will operate and maintain their own facilities without a framework in which such activities can realistically take place.

An integrated approach toward projects and programmes

Creating synergy with a Community Support Programme

There is a natural synergy which develops when projects and programmes are brought together in an integrated approach to provide mutual support. Such an effort can be carried out through the development of a national framework (herein called a Community Support Programme, or CSP) within which projects and programmes can be coordinated. The natural lead role for coordination of the integrated effort falls to government programmes in the rural sector, yet these have seldom been designed to serve such a function. A Community Support Programme for rural water supply and sanitation (Figure 1) could coordinate inputs from the national to the local level and delineate the needs for programme and project support. Within such a framework, external support organizations can be asked to find their place of service toward the integrated effort by participating in individual project or programme activities. First, however, it is up to individual governments to set the agenda by developing (with outside assistance, if required) a Community Support Programme to integrate sector projects and programmes.

An open-arm policy toward communities that qualify

In rural areas of developing countries it is generally not productive to use a strict project approach by establishing a fixed list of beneficiary communities prior to project implementation. Not all communities on such a list could be expected to develop into successful projects. The reason for this is twofold: (i) many communities are not ready to make the commitments nor develop the consensus necessary for a successful project; and (ii) local institutions are often weak or non-existent in rural water supply and sanitation. A programme approach is more cost effective because of its open-arm policy toward all communities that qualify, rather than the conventional project focus upon a predetermined list of communities. With a slight revision of objectives (ie to serve 10 communities *that qualify*, rather than 10 named communities), the chances for success are considerably improved. The programme approach thus gives incentives to communities that are able to fulfill their responsibilities. This lesson has yet to be learned by most government agencies and external support organizations, as they almost always call for a fixed list of participant communities prior to project funding.

Achieving success in project activities

In addition to the above stricture, a well-designed planning procedure which integrates projects and support programmes is necessary to achieve sector success. A six-step procedure (Figure 2) is available to accomplish this end (Chandler [1]), and seeks to involve people and planners in a joint search for the proper mix of hardware and software to meet community needs. The procedure uses community education and participation as a vehicle in the search for a proper hardware/software mix, and makes use of the assistance of local project facilitators to mobilize the effort. The establishment of a local institution for the future management, operation and maintenance of facilities is viewed as a prerequisite to ensure the
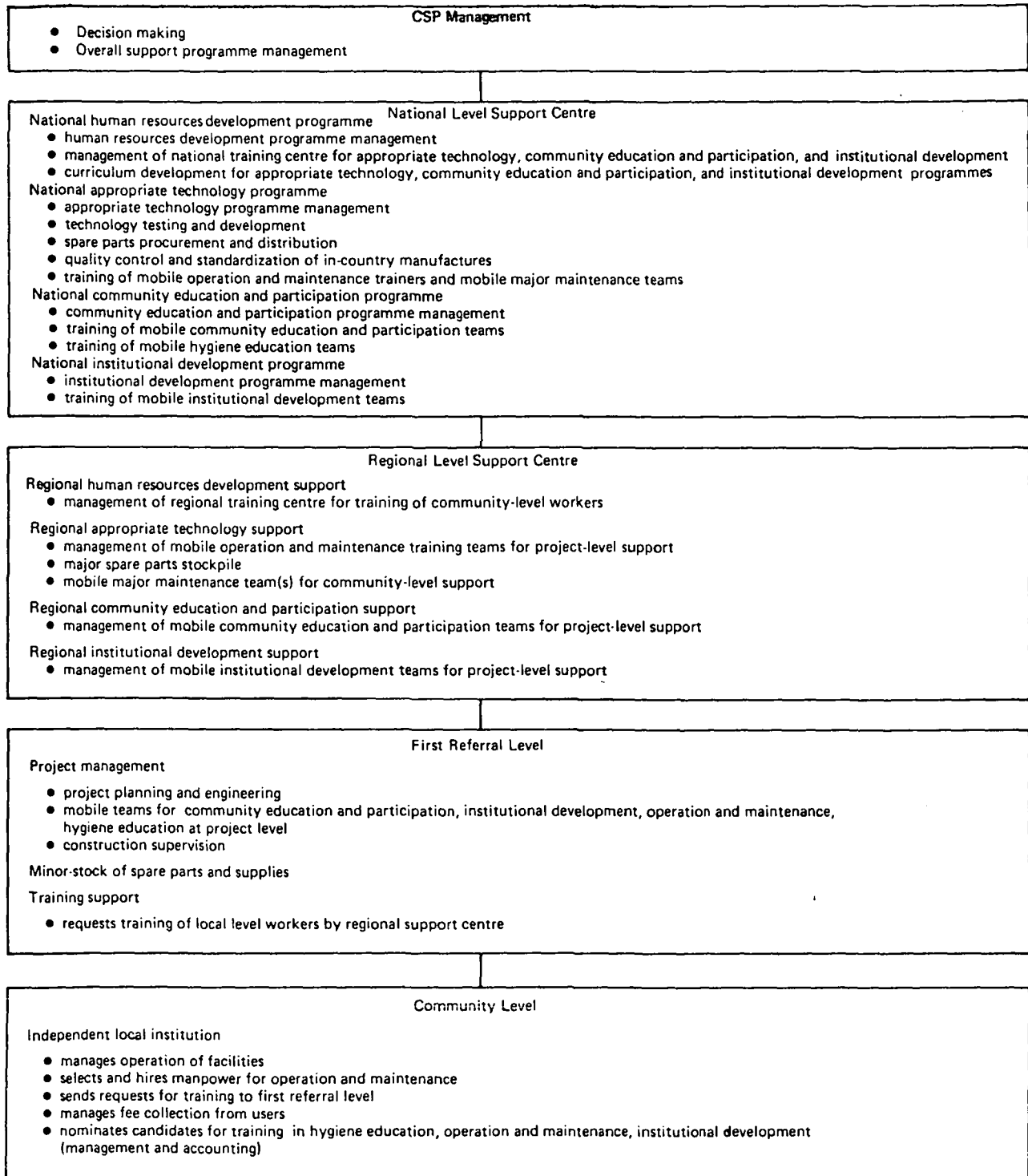
CSP Management
- Decision making
- Overall support programme management

National Level Support Centre

National human resources development programme
- human resources development programme management
- management of national training centre for appropriate technology, community education and participation, and institutional development
- curriculum development for appropriate technology, community education and participation, and institutional development programmes

National appropriate technology programme
- appropriate technology programme management
- technology testing and development
- spare parts procurement and distribution
- quality control and standardization of in-country manufactures
- training of mobile operation and maintenance trainers and mobile major maintenance teams

National community education and participation programme
- community education and participation programme management
- training of mobile community education and participation teams
- training of mobile hygiene education teams

National institutional development programme
- institutional development programme management
- training of mobile institutional development teams

Regional Level Support Centre

Regional human resources development support
- management of regional training centre for training of community-level workers

Regional appropriate technology support
- management of mobile operation and maintenance training teams for project-level support
- major spare parts stockpile
- mobile major maintenance team(s) for community-level support

Regional community education and participation support
- management of mobile community education and participation teams for project-level support

Regional institutional development support
- management of mobile institutional development teams for project-level support

First Referral Level

Project management
- project planning and engineering
- mobile teams for community education and participation, institutional development, operation and maintenance, hygiene education at project level
- construction supervision

Minor-stock of spare parts and supplies

Training support
- requests training of local level workers by regional support centre

Community Level

Independent local institution
- manages operation of facilities
- selects and hires manpower for operation and maintenance
- sends requests for training to first referral level
- manages fee collection from users
- nominates candidates for training in hygiene education, operation and maintenance, institutional development (management and accounting)

Figure 1. Model Community Support Programme (CSP) for community water supply and sanitation projects.

continued functioning and utilization of facilities in most situations.

In the outlined procedure, planners are asked to change their style, and go out of their way to identify and listen to disadvantaged groups, including women and children. 'Software', such as support programmes for institutional development and human resources development are seen as important components of the proper mix. Planners are cautioned not to promote a specific technology, but to select an appropriate technology through the use of community involvement. Demonstration of community consen-
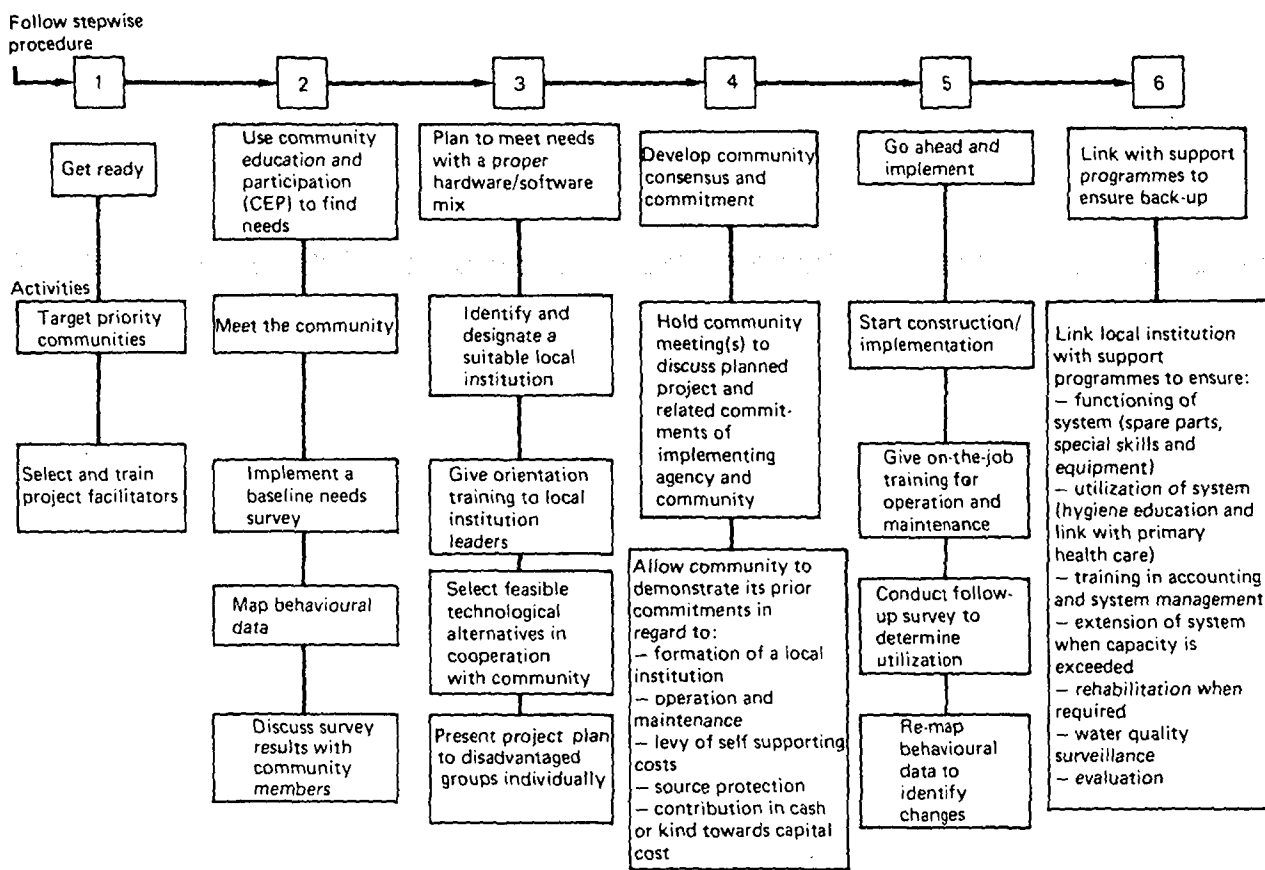
Figure 2. Six-step planning procedure for community water supply and sanitation projects.
Source: Chandler [1].

sus and commitment are viewed as indicators of success, as flexible planners win popular support and help the community feel satisfied. Following construction or implementation, a link is forged between the local institution and available support programmes (through the CSP) for continued backup as required.

An appropriate procedure for involving communities in projects can serve to overcome the conceptual gap between people and planners. The six-step procedure outlined can be incorporated into existing projects to improve success in the field. In this way, planners work closely with the people to determine community needs and to develop popular support for actions to meet the needs identified.

The selection of the proper hardware/software mix through community involvement can ensure that projects go beyond mere coverage of the population with facilities, to ensure that facilities function and are utilized for long periods of time under difficult conditions. In order to give a sense of ownership in communities, the establishment of local institutions should be considered a prerequisite to the achievement of success. This is particularly important in rural

areas, where local people have the option of continuing to use traditional alternatives, rather than modify their behaviour by using the facilities that are provided through the project. Through this process community members are encouraged to choose incremental improvements in water supply and sanitation facilities beyond traditional alternatives, as well as to develop the local institutional framework through which such improvements can be sustained.

Evaluation – the key to full integration of projects and programmes

Full integration of projects and programmes is an iterative process, assisted by evaluation of the results of past efforts in the field. Documentation of sector experience in the achievement of coverage, functioning and utilization of facilities across a representative sample of communities is a valuable tool in this regard (Figure 3). While evaluation of project outputs (primarily hardware) has been outlined elsewhere (WHO [3]), the evaluation of programme components has received little attention.

In order to suggest direction in this area, the following points are provided. When evaluating the
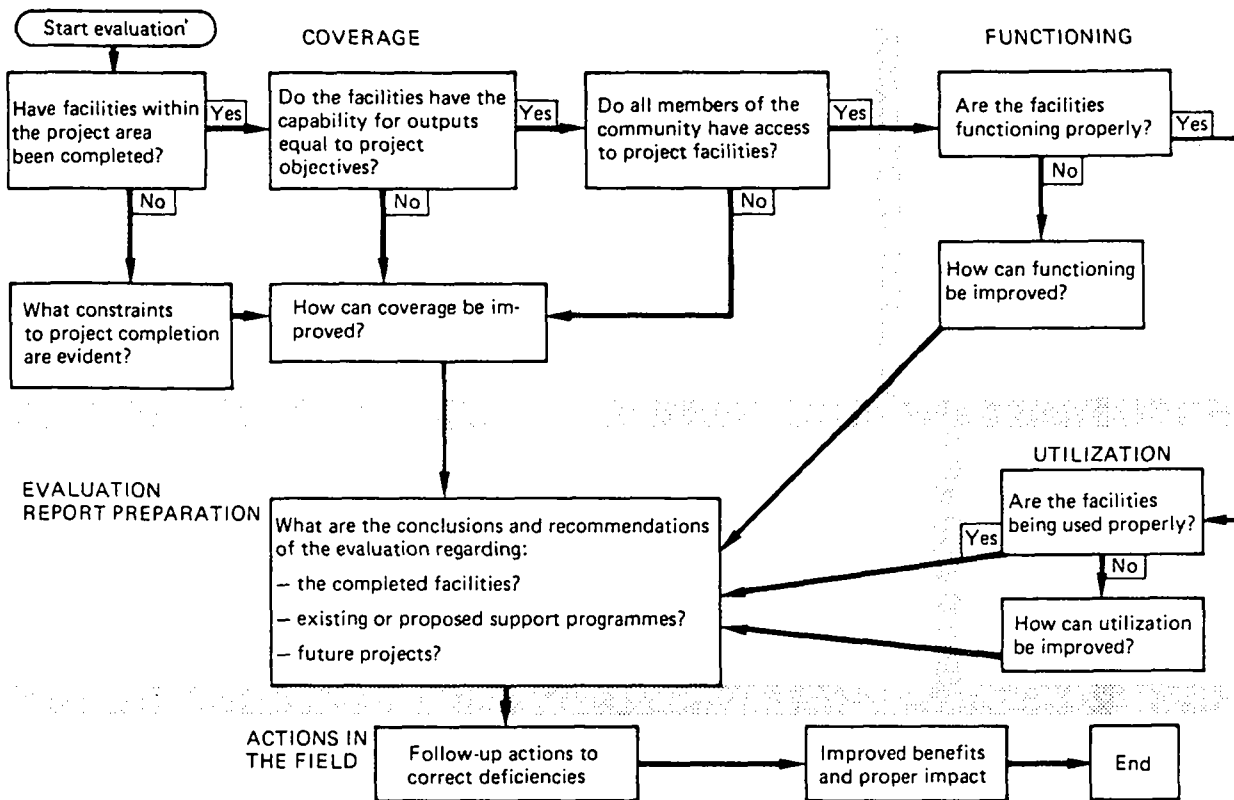
Figure 3. Overview of the evaluation process.

adequacy of support programmes to ensure long-term *functioning* of facilities, four indicators can be suggested: (i) successful delegation of responsibility and authority to local institutions by central government; (ii) the operation and maintenance record at the local level; (iii) the adequacy of revenue generation to meet recurrent costs; and (iv) the availability and adequacy of training programmes (through the CSP) for the staff of local institutions. With regard to evaluation of the adequacy of support programmes to promote continued *utilization* of the constructed facilities (as opposed to traditional alternatives), five indicators are important: (i) the convenience of the facilities (as judged by the users); (ii) user satisfaction; (iii) knowledge and skills of community members toward the use and maintenance of the technology; (iv) *community attitudes and beliefs* toward health etc; and (v) the availability of a support programme (through the CSP) to foster hygiene education at the local level. Unfortunately, procedures for the evaluation of integrated projects and programmes have not yet been detailed in the literature.

The project/programme implementation procedures referred to here were developed as the result of case studies carried out by local institutions in nine developing countries of the Asia and Pacific Region

(of UNDP) under the International Drinking Water Supply and Sanitation Decade Advisory Services Project (funded by UNDP and implemented by WHO). The guidelines can be implemented incrementally in pilot areas within ongoing efforts, while the strengthening or establishing of programme support systems takes place. Sector fragmentation can be reduced through the combined support of all sector agencies in the development of support programmes, as required. As the procedures for project and programme integration outlined are neither country nor situation specific, they should find widespread application in many developing countries of the world.

Lessons from the IDWSS Decade

The official slogan of the International Drinking Water Supply and Sanitation (IDWSS) Decade (1981–90), is 'Clean water and adequate sanitation for all by 1990'. Unfortunately, this slogan (and goal) was translated early in the decade primarily into 'coverage targets' as part of decade plans prepared in individual countries. Since coverage was the *de facto* indicator with which decade output was measured, long-lasting results have been difficult to demonstrate, particularly in rural areas. As mentioned

above, three indicators are necessary to demonstrate long-term sector success (coverage, functioning, and utilization); with the use of only the first, many short cuts are possible in sector projects. Coverage – which implies access to facilities at least on paper – does not indicate whether the facilities are working, or whether they are being used for the intended purpose by target beneficiaries. When only coverage is measured, agencies are easily enmeshed in a numbers game involving handpumps and latrines, frequently constructing them in mass in the absence of community participation in decision-making, in the absence of integrated spare parts supplies and training programmes, and in the absence of effective local institutional development. In fact, the history of the IDWSS Decade generally documents these trends. Only when countries begin to consider coverage, functioning and utilization – all as necessary indicators of success – will shortcuts disappear and the drive for

success in rural efforts lead to widespread adoption of new approaches. The 1990s represent a fresh chance for governments (and external support organizations) to modify their indicators for success, and to go beyond coverage by integrating projects and programmes for rural water supply and sanitation.

References

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