Analysing provision of information resources and services to water specialists in Kenya: the case of the Ministry of Water and Irrigation

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Abstract
This study analyses the provision of information resources and services to water specialists in the Ministry of Water and Irrigation (MOWI) and to propose ways in which they can be enhanced. The study population consisted of water specialists, technologists, technicians and information providers. Seventy four (74) respondents were selected using both probability sampling and stratified sampling techniques. Data was collected by administering questionnaires and interviews. The findings of the study indicated that there was inadequate provision of technical information resources and services to water specialists at MOWI. It was concluded that the provision of information resources and services be re-engineered in order to enhance access and use of information by water specialists. The major recommendations made were that MOWI should update water information resources, engage water specialists in information resources selection, create awareness, train information provision staff and renovate, equip and stock the library and documentation centre through adequate funding by the MOWI.

Keywords: Information provision, Information resources, information services, water specialists, Ministry of Water and Irrigation.

Introduction: Case (2007) defines information as any difference you perceive in an environment or within yourself. The effectiveness of a library or information resource centre depends on the information available and on the correspondences between the user and the provider. It also depends on the potential the information is to the user and how willing they are to make use of it. Information is greatly regarded as the key ingredient for solving myriad of problems that face human daily activities. What takes place in the Ministry of Water and Irrigation necessitates the access of abundant information. Water specialists are the facilitators on the provision of water to the public. In regard to
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information resources, water information is provided in various formats they include; newspapers, manuals, books on water issues, periodicals and journals.

Background information: MOWI is responsible for the development of policies and strategy formulations for the water sector hence the need to have adequate information on water for water resources mobilisation. MOWI plays a vital role in dissemination of mainly water based information to water specialists, policy makers and water boards located at the national, regional and at the local level. Water information is vital for use in developing sustainable water sector. It is the key ingredient in accumulating knowledge that backs up the activities necessary in a water sector in any country. The information is geared for use by key players who comprise of hydrologists, geologists, land reclamation officers and irrigation engineers. Better management of this information can bring development in facilitating easy provision to this information.

Purpose of the Study: The study sought to analyse the provision of information resources and services to water specialists by the MOWI, and to propose ways in which they can be enhanced. Various objectives were used;

- Identify the information sources used in provision of water information to water specialists in MOWI.
- Establish the various channels used in provision of water information to water specialists in the MOWI.
- Identify the role of the library, documentation centre and information services in provision of water information to water specialists in the MOWI.
- Assess the effectiveness of the channels used by water specialists in accessing water information.
- Identify challenges faced by the water specialist in provision of water information resources.
- Make recommendations and proposed a model to improve provision of water information in Kenya.

Research Methodology: The study was modelled on a case study and the instruments for the study consisted of a questionnaire and interview schedule. The target population comprised Senior engineers (20), Hydrologists and Geologists (66), Land reclamation officers (28), Irrigation Engineers (26) and Heads of departments, library and records staff (8) with a total of population of 148. Probability sampling was useful to the study because the various water specialists in the different water areas in MOWI had an equal probability of being picked up.

Sample size and sampling procedure: Stratified sampling was used to categorise water specialists in the MOWI and the sampling frame was the water specialist’s in the various Departments in the MOWI. In adopting the proportional allocation by Kothari (2004) the sizes of the samples from the different strata of the water specialists were kept proportional to the sizes of the strata. A sample of 74 was drawn from a population of 148. The sample sizes for the different categories were; Water services 10, Water Resources Management 33,
Land reclamation officers 14, Irrigation engineers 13, Heads of departments, library and records staff 4.

Instrumentation: The study used a questionnaire which was administered to the water specialists to respond to. The questionnaire had both open ended and close ended questions. An interview schedule was used in the study. Two Heads of Departments in the MOWI and two library and record staffs were interviewed using the interview schedule.

Validity and reliability: The reason for structuring the questionnaire under subheadings was to ensure that all objectives of the study were taken into consideration and in this way content validity was enhanced. The pilot study which was done on water specialists also attested to the validity of the questionnaire.

In the interview maintaining stability was challenging. This is because as the interview was conducted, there was response for answers in potentially different ways due to rephrasing of the questions from one Head of Department to the other. However, the researcher clearly explained to the Heads of departments and water specialists the aim of the interview and questionnaire respectively. The questionnaire suggestions in the pilot test were analysed and incorporated. The study maintained confidential identity, gave credit, appreciated, recognized and acknowledged other authors work.

Results and discussion: A total of 70 questionnaires were issued to water specialists and 2 Heads of Departments and 2 Library and records staff was interviewed respectively. Out of the 70 questionnaires issued 64 were completed and returned translating to a response rate of 91% percent for the water specialists.

Water information sources accessible by water specialists in the MOWI: The findings established that there were a variety of information sources available to provide water specialists with water information. 38% stated that they had resource people 94% stated that they had newspapers; 31% stated that they had a library; 47% stated they had a TV and 34% stated they had magazines. However, only 19% stated they had radios; 16% stated they had calendar of events for the Ministry; 34% said they had magazines; 86% stated they had films; 56% stated they had the Ministry brochures and 91% stated they had internet.

However the usability of these sources depended on the effort made by the individual water specialists to access them. It was revealed that the frequency of water information provision by majority of the sources available at the MOWI was unsatisfactory.

Media frequently used by water specialists to access water information in the MOWI: The study findings established a number of ways in which water specialists went about accessing information on water. 32 (50%) out of 64 respondents preferred information in electronic, 14 (22%) out of 64 water specialists preferred print format and 18 (28%) out of 64 water specialists stated that they preferred audio visual formats due to the nature of their work.

Role of library, documentation centre and information services in provision of water information to water specialist in the MOWI: From the findings a majority of the water
specialists 52 (81%) did not find the library useful in provision of water information while 12 (19%) of the water specialists stated that the library was useful for their information needs.

A majority 52(81%) of the water specialists were quite specific in ranking the documentation centre as inadequate for their information needs while 12 (19%) of the water specialists ranked the documentation centre as adequate. This reason for this can be attributed to poor funding of the documentation centre, lack of adequate infrastructural facilities and essential resources and personnel.

The study established several information services that the water specialists were aware of 34 (53%) of the water specialists used the internet services for their information needs while 10(16%) used reference and referral services. 9 (14%) of the water specialists used the selective dissemination of information while 6 (9%) of the water specialists used the indexing and abstracting services. 5 (8%) used current awareness services.

20 (31%) of the water specialists rated the library services as excellent since they were able to use the information services to attain their information needs. 31 (48%) indicated the services were good and 13(21%) of the water specialists indicated that the services were fair since much more could be done.

**Effectiveness of media used in provision of information to water specialists:** The findings revealed that 6 (9%) of the water specialists found the media used by the water specialists not effective at all. They pointed out that some of the media provided to them did not meet their information needs while 49 (77%) of the water specialists found the media to be moderately effective. 9(14%) found the media to be effective to a great extent. The water specialists stated that the media provided to them gave the information required; was readily available, clear and easy to understand. They went on to say that by the end, they were knowledgeable and experienced.

From the findings, it was found that majority 38 (59%) of the water specialists utilised the information resources available for education/manpower development especially as most of them are engaged in field work activities. 11 (17%) of the water specialists utilise the information resources for applied research while 10 (16 %) use the information for general knowledge. 3 (5%) of the water specialists use the information for consultation while 2(3%) of the water specialists did not attempt the question. The findings therefore show that most water specialists are oriented towards the use of information for manpower development hence putting emphasis on application of this new knowledge.

**Problems identified by water specialists in provision of water information resources:**

Challenges water specialists face in provision and access of information include: Inactive library in information provision: 81% of the water specialists pointed out that the library was not useful in provision of information resources. The water specialists indicated various reasons as to why the library was not useful. Such as, inadequate water information resource, the information is not updated/specific, limited access to library information...
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resources, library is not developed and information materials are hard to understand/not user friendly.

No Inter library Loan (ILL) services: Water specialists suggested the need for Inter library loan services with other water bodies.

Lack of Awareness Creation: It was suggested that there was need to create awareness among water specialists about where else they can find what is relevant to them at their convenience.

Inadequate facilities for the library and documentation centre: Majority of the water specialists indicated that the current library and documentation infrastructures were not adequate to cater for the information needs in the MOWI. The information provision personnel were also not adequate for dissemination of information.

Understaffing and need for training of information provision personnel: From the study it was revealed that the information providers do much more than simply providing of facts. They had new responsibilities and the user’s expectations included the analysis and interpretation of information as well as its delivery hence it became a challenge when the same staff was expected to serve other clients at the counter and also assist in retrieval of information resources.

Inadequate funds for acquisition of information/budgetary allocations: it was found that the library was not efficient due to limited financial resources in budgets and this was also a controlling factor in most of its promotional efforts.

Inadequate and outdate information resources: Most water specialists indicated that most information resources provided were out dated. They suggested that they should be consulted on the information resources suitable in their respective areas of specialization as they are more knowledgeable on the information needs.

Conclusion: Provision of information resources and services to water specialists is stalled by a number of factors such as inadequate and outdate information resources, inadequate facilities for the library and documentation centre, understaffing and training in information provision personnel among others. The need for MOWI to improve the information resources available for use through the provision of functional and effective information centres and through the provision of basic skills in information handling cannot be ignored if any landmark achievements are to be made.

To overcome the challenges of provision of information resources on water, all the stakeholders need to share information efficiently and effectively. They also need to invest in the current and versatile information storage and provision methods. This will ensure information is available at all times as needed by the water specialists. With the emergence of the internet, the collection of information by any user is becoming far beyond. Through the internet, networking with water consultancies which provide water information would create a good forum with others who are in the water sector.
Recommendations for implementation: Updating of water information resources, engaging water specialists in information resources selection, creating awareness for active participation of stakeholders and other interested groups in the water resources management, training of information provision staff and renovation, equipping and stocking of the library and documentation centre through adequate funding by the MOWI.

References: