Management of Information Related to Climate Change: Project Challenges, Lessons Learnt and Way Forward

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Abstract

The paper is based on the project on documentation and communication under CCIAM programme. It highlights the cross-cutting nature of the project, the methodology including team building strategies, achievements such as the CCIAM website, Open Access Repository (OAR) Guidelines, Stakeholders' workshops, the Information Resource Centre (IRC) and others, experiences and lessons gained. The paper underscores not only the role of information as a critical resource for existence of an entity, but also the value of information when managed using appropriate methods. Concepts and principles of open access are briefly explained emphasising their strength in sharing research results and increased visibility. The paper also attempts to shed light on the concept of Information and Communication Management (ICM) Strategy in an attempt to share knowledge and create awareness about its importance in realizing the goal of the programme. In this regard, it points out an initiative towards establishing an ICM for CCIAM programme. In conclusion some challenges encountered and opportunities seen in the course of executing the activities of the project are highlighted. The paper ends by indicating the way forward up to completion of the project's objectives and beyond.

1. Introduction

Information is now widely recognised as a critical resource in line with finance, personnel, raw materials and equipment. Properly managed information saves cost of resources including time (The National Archives, 2009). When information on research findings is documented and communicated effectively, it adds value to the research outputs by contributing to the desired change in knowledge, attitudes and practices among targeted communities.

Poor communication and information sharing networks have been pointed out by the National Framework for Reduced Emissions from Deforestations and forest Degradation (REDD) as one of the situations that call for establishment of an efficient communication and information sharing mechanism in the country (United Republic of Tanzania, 2010), that may also provide gateway to the international community. For information to have optimal value it has to be documented and efficiently communicated to as many actors as possible in the value chain. In recognition of the need for managing information at the programme level to complement what is being done at the national level, a cross-cutting project was included in the CCIAM programme. The project came after approval of other research projects for purposes of documenting and improving access to information emanating from the programme and other climate change (cc) related resources for better environment and improved livelihoods in Tanzania. The project activities started a year after approval of the programme, and is being implemented mainly by library and information professionals at four partner institutions in Tanzania namely Ardhi University (ARU), Sokoine University of Agriculture (SUA), Tanzania Meteorological Agency (TMA), and University of Dar es Salaam (UDSM), together with librarians at the collaborating institution- the University of Life Sciences (UMB) in Norway.

2. Methodology Used for Planned Activities and Outputs

The methodology considered the extent of diversity of players in the project with

respect to location of institutions and experiences with management of research information. Therefore the following were considered:

Team building
Project teams at each institution were encouraged to meet and familiarize to project activities. Visits to collaborating institutions by the project coordinator and inter-team meetings were also useful in building team spirit and reaching participatory decisions.

Meetings, workshops and retreats
Project team meetings were used to make decisions, monitoring and evaluation of project activities and reviewing the way forward. Two workshops were conducted to create awareness about the cross-cutting nature of the project among researchers under CCIAM programme, and to sensitize researchers on the usefulness of the project as one of the avenues through which information emanating from their research activities could be managed and communicated. Furthermore, stakeholders' workshop aimed at creating awareness about Open Access Initiatives (OAI). Completion of some technical tasks such as customisation and configuration of servers for the Open Access Repository (OAR) required retreats for a group of technical people to work together away from their normal duty stations.

Simple communication models using web 2.0 tools
A simple wiki using wikispaces.com was set up However, after some trial we found that pbworks.com has functionality needed and will be better suited for the project. The wiki can be used for sharing project internal documents as well as for joint development of documents. It was decided to try it out among project partners at SNAL and UMB before inviting colleagues from the other three organisations to join. The wiki is meant for the CCIAM documentation team only.

A facebook page will be set up for the CCIAM documentation project. The page can be used to share information on relevant news, documents etc. with the outside world. It can also be used as a communication tool and link to for example the Norwegian Embassy or other CC or environmental pages, thus giving the project a voice in managing and organizing information carriers to make them retrievable and accessible for potential stakeholders. Other interactive tools may be considered as the project evolves.

Project Instruments
Through participatory face to face and online discussions, three instruments were developed to assist various activities of the project. They include:

Needs assessment questionnaire; The questionnaire is intended to conduct the information audit among researchers in CCIAM projects, relevant NGOs and policy makers at selected ministries;

Document identification form; A standard form is used in identification of relevant documents at the four institutions that are collected for digitazation and/or for the information resource centre; and

The Open Access Repository (OAR) guidelines; The CCIAM OAR is one of the major outputs of the project. It will follow the Open Access Initiatives (OAI) model with the underlying principle of the new standards for structured digital object storage and exchange formats. Such a repository will also take into account the existing institutional policies on intellectual property (IP), research policies etc. thus a need for the guidelines.

3. Results and Achievements
3.1 The CCIAM Website
The website was set up as one of the first outputs of the project. Input from the programme management and other projects are solicited to make it a useful

communication tool for the programme as such, not only the documentation project. The web site will be updated regularly and contain the essential information on programme activities in order to have an impact as a good communication tool. Researchers and other people are encouraged to access the website and give comments for improvement

3.2 The Information Resource Centre (IRC)

In meeting with the project teams it was agreed that one must see all the components of the project proposal (OAR, physical collection, QAS, website and document delivery including the competence needed to build and maintain these services) as jointly making up or being output from an Information Resource Centre. However, for the purpose of this paper, use of IRC is about the physical collection of the documents related to cc issues. To this effect, a small room has been partitioned from the library's (Sokoine National Agricultural Library (SNAL) at SUA) special collection to house the proposed collection of print/physical material on cc relevant information. Since SNAL uses Library of Congress Classification for indexing and shelf locations, documents in the IRC will be marked with a specific code to indicate they are located in the IRC.

Sources of documents include selection from existing collection at SNAL and CCIAM Programme secretariat where extra copies of programme and other project documents will be availed to the IRC. In addition there are initiatives to obtain documents from sources like other partner institutions, ministries and government offices, NGOs, research organisations etc. Unfortunately, and as an oversight at project planning level, there is no budget line for purchase of books. However, the issue was taken up by the programme management to see posts in the budget such as under communication

and dissemination activities, where savings can be made to cater for the purchase of at least some of the most central reference works in the climate change debate. In another initiative, emails were sent to some international organisations to solicit for free materials/documents and explain why physical documents are needed to supplement internet accessible information. So far donations have been received from two organisations Most of the documents are highly relevant, and offered an opportunity to speak to several staff members not directly involved in the documentation project about the planned IRC. While bibliographic information of the physical documents will be available through the library catalogue after resolving a temporary technical problem about adding bibliographic data to ABCD software (an open access library software in use at SNAL), the full text of digital documents will be accessible in the CCIAM OAR once ready.

The services of an IRC must be promoted to target groups, and can only be evaluated from its usefulness to support research, dissemination and teaching. Measurable goals for the use of the various components of the IRC shall be set in activity plans. The IRC is currently being publicized through different programme meetings as well as CCIAM websites with a purpose of getting users know and get to use it.

3.3 The CCIAM OAR

The OAR is a digital collection of the intellectual output which is online, free of charge and free from most copyright and licensing restrictions (Allard et al., 2005). The CCIAM OAR is a subject repository about CC and related issues. Its role will include managing research reports, pre-prints, monographs, teaching materials, conference papers, outreach material, theses and dissertations, as well as post-prints and other works-in-progress, peer-

reviewed articles, provided that the repository guidelines are adhered to.

It is also a complementary avenue to document and enhance access to information for and from REDD initiatives in Tanzania. The repository will facilitate access to the existing and future research information on CC by the scientific community, policy and decision makers, etc. It is expected to promote information resource sharing and visibility as well as promote local content on CC.

The OAR basic requirements include selection and acquisition of software and hardware as well as having approved OAR Guidelines in place. The guidelines are in place, likewise servers and scanners have been purchased. For the software, it was decided that DSpace, out of several other open source software be used for the repository based on the knowledge about user community, that there are other digitazation initiatives at partner institutions such as University of Dar es Salaam with some experience in using the software. Experiences within partner institutions will be useful for imparting practical skills to technical staff responsible for hands on repository activities. In addition, software troubleshooting will be easier when need arises. While the main server will be at SUA, the programme's coordinating institution, the other three institutions will also host mirrored servers. There are important decisions yet to be made such as indexing system to use. Likewise, synchronisation of servers and fine-tuning the configurations are a challenge but on-going tasks. Technical teams are working in close cooperation with UDSM library IT staff, ARU computer Centre staff on customizing DSpace database since they have experience, and could most likely advice on some of the above mentioned technical challenges.

3.4 Activities/Outputs that remains to be done

3.4.1 Question and Answer Service (QAS)

QAS and document delivery are mentioned as tools to achieve the project's goal, which is to enhance access to information on climate change, emanating from CCIAM programme and other related sources for better environment and improved livelihoods.

These activities will have to be promoted to the programme management and projects, as well as to external stakeholders. Based on experience from running a question and answer service with Technical Centre for Agricultural and Rural Cooperation CTA), this could be started right away based on access to scientific journals, web based documents and contact with researchers. It should, however, be seen as part of the programme's entire strategy for reaching out to various stakeholders, and should thus be written into the draft documentation, communication and dissemination plan.

3.4.2 Document delivery

At most libraries in the four partner institutions, document delivery is a phrase used about supplying library users with documents they cannot otherwise get, e.g. as interlibrary loans or photocopies (this is also the most widely accepted definition of the term in library and information studies). An information needs assessment is planned specifically targeted to researchers in project under CCIAM, but also other researchers in the four Tanzania partner institutions. This will reveal whether there is a felt need for such services.

Document delivery could also be seen as supply from the library's resources to outside stakeholders as part of the programme's dissemination activities. This should be discussed further with the

programme management. Quantifiable goals should be set up both for QAS and document delivery.

4. Other Activities That Emerged in the Course Of Project Implementation

4.1 Resolutions by editors of journals hosted mainly at SUA

Following a long standing concern about poor performance of the journals in terms of keeping up to the established frequency and currency, the project was requested to convene a meeting of the journal editors to discuss constraints, challenges and ideas related to journals hosted mainly at SUA. The meeting was attended by four editors or their representatives, responsible for three journals namely Tanzania Journal of Agricultural Sciences (TAJAS), Tanzania Veterinary Journal (TVJ), formerly known as Tanzania Veterinary Bulletin (The Tropical Veterinarian) and Tanzania Journal of Forestry and Nature Conservation. In addition, five senior librarians participated and shared their experiences.

Members of the meeting apart from brainstorming on challenges that are faced by individual journals, they shared useful ideas that may help to improve the status of the journals, particularly with a view of joining or maintaining online presence through joining African Journals Online (AJOL) or any other Open Access initiative.

The four top most important recommendations out of the entire list of ten include:

i) Merge some of the Journals. Merging was recommended so as to have few, for example three (3) strong ones from three faculties [FOA, FVM and Fo&NC]. This approach will pool together scarce resources including human and financial resources.

ii) Make them accessible online and preferably through Open Access. This will increase visibility of individual scientists as well as their institutions. It will also increase the impact of the journal and of the research being communicated.

iii) Expand Editorial Boards to have an international representation/status

iv) Merge the issues published per year into a single volume and print only a few copies to supplement online publishing.

4.2 Input to CCIAM communication strategy development

In the course of implementing the CCIAM programme, the project was requested to team up with members of the programme's communication team to draft the programme's communication strategy. The team worked out the draft programme's Information and Communication Management (ICM) strategy which could be used only as a framework for the projects under CCIAM programme. In this context, ICM is defined as the process by which an organisation (could be a programme, project etc) efficiently plans, acquires, organizes, transforms, uses, controls, communicates, disseminates and disposes of its information, communication and associated resources. It comprises the management of all activities and resources related to information and its communication to target audiences within and outside the organisation (CTA, 2011)

5. Challenges, Opportunities and Lessons Learnt so Far

Working in and management of collaborations, particularly from long distances is both a challenge and an opportunity. It is apparent, and perhaps expected that members from SUA as coordinating institution were more knowledgeable about SUA's resources but had less knowledge about other institutions. Thus at the beginning more

assumptions than facts were used regarding other partner institutions in Tanzania.

There were some oversights at project proposal/planning level with regard to inputs and corresponding budget (e.g. acquisition of literature on CC, involvement of IT experts at all partner institutions, need for attending training workshops or even short courses particularly with regard to practical application of modern ICTs). Adjustment and re-adjustment or flexibility with sequence of activities has been necessary following regular project internal review meetings. M & E tools were implied, but probably they should have been clearly factored in within the project, just as it was for the entire programme. Other challenges were related to unreliable IT infrastructure at almost all partner institutions.

The project however, has been an opportunity to network, pull together different experiences and expertise to improved knowledge and skills including interpersonal skills for team building. The project has been a good learning experience on current issues in information management. Over time, team members have gained competence in areas of OAI, and communication strategy development as compared to the time before the project.

6.   Conclusion

The project has encouraging results or achievements so far, some of them have policy implications/recommendations for partner institutions. As a way forward, the project is focusing at achieving its objectives within the time of the programme despite some project activities being overdue.

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