

Lessons from malaria control activities in urban West Africa using a research-action-capacity building approach

G. Felber, N. Othingué,
N. Yemadji and K. Wyss

Summary

In the South, urban environmental and social management is often based on top-down approaches which use technologies and strategies not corresponding to the demands of the inhabitants and to their social, economic and ecological realities. This paper discusses how a community-based approach – Research Action Capacity-building (RAC) – can be valuable for malaria control and more specifically for the dissemination of insecticide treated bednets. Taking a bednet project in N'Djaména, capital of Chad, as an example, the article investigates the potential and the limitations of this approach for mobilising and strengthening sustainable activities and capacity-building at community level.

Introduction

In 1994 the Swiss Tropical Institute (STI) initiated a project 'Management of deprived urban areas by their inhabitants' funded by the Swiss National Science Foundation and the Swiss Agency for Development and Co-operation (Wyss, 1999)¹. The aim was to promote existing community initiatives, which are seen as especially relevant in contexts where basic social services provided by governments are inadequate or insufficient, as they are today in many countries of the South.

From 1997 onwards, one of the components of the project was the introduction and promotion of the use of insecticide-treated bednets (ITNs) for malaria control. The project was financed by WHO's² Training in Tropical Diseases Programme, as it was recognised that there is a great need to carry out research on the most efficient means to implement and sustain the use of ITNs for malaria control in urban settings where malaria is endemic (Lengeler et al., 1996)³. It has been shown that the use of ITNs reduce malaria transmission considerably. Several studies in Burkina Faso and other African countries revealed that a reduction of infant mortality of up to one third is possible through the correct use of ITNs.

¹ For further information on the context, setting and main activities, visit <http://www.urb.ch/>

² WHO – World Health Organisation

³ Note the recent initiative 'Roll Back Malaria' of WHO. Visit <http://www.who.int/rbm/>

⁴ 'Recherche Action Formation' – French translation.

Activities related to mosquito nets were launched with following aims:

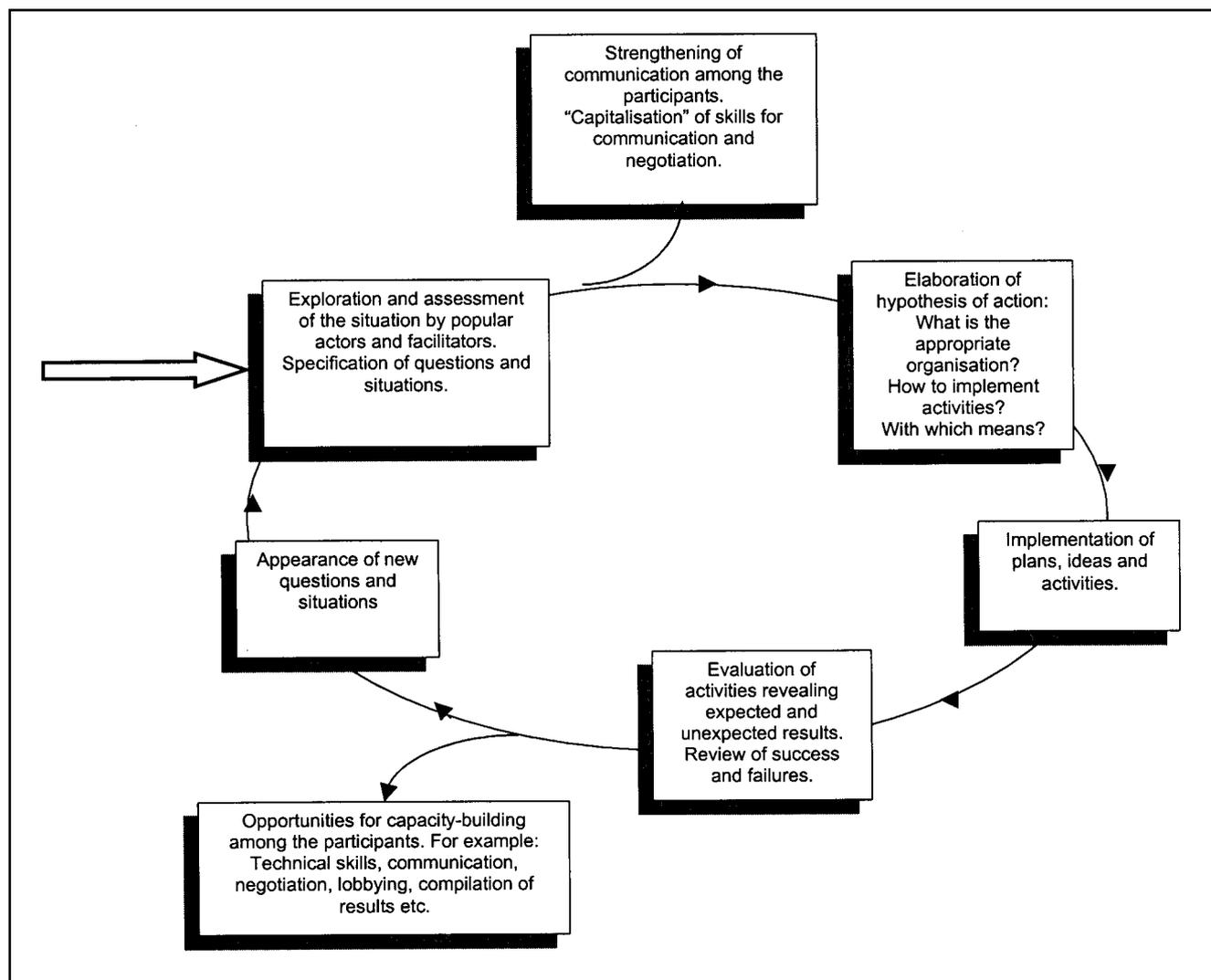
- to introduce, promote and maintain the use of ITNs by using a participatory approach;
- to create and sustain commercial centres for sale and for impregnation of nets;
- to identify the advantages and disadvantages of using the 'Research Action Capacity-building' approach;
- to empower grass-root initiatives; and,
- to develop knowledge and capacities of the organisation and communication of local people.

This paper discusses the potential of the RAC approach for mobilising and strengthening community-based activities and for capacity-building regarding the promotion of insecticide treated bednets. Furthermore, it reports what worked and what did not work during the setting up of net selling and impregnation centres.

Approach

A Research Action Capacity-building⁴ (RAC) approach was selected as the conceptual framework for the promotion of insecticide treated nets (N'Diaye, 1994). In contrast to a top-down approach where project design and implementation are directed by outsiders, in the RAC approach, the people who are intended to benefit from the results control the research, planning, execution and the on-going evaluation, as well as the redefinition of the activities. There are many similarities between RAC and Rapid Rural Appraisal (RRA) but there are also differences. The ideas, concepts and methods used by the approaches are those that encourage disadvantaged groups to take control of research and/or development activities being undertaken. RAC, in addition to obtaining the information, is primarily also concerned with enhancing local people's active participation in the research and development process. The RAC approach overlays elements of assessment with action, whereas RRA is often based on a two-step procedure: first making an assessment of a situation followed by implementation activities. Moreover, RAC puts capacity-building and acquisition of knowledge as the main focus of the process, not in the sense of providing courses or prefabricated models, but through the exchange of common experiences and value attributed to people's own creativity. Thus, RAC sees social change as the ultimate

Figure 1 The Research Action Capacity-building process



goal. Both approaches may use tools such as visualisation techniques to enable local people to share and analyse their situation. However, in the context of the present case-study, regular meetings, group discussions and workshops were principally used.

Usually the RAC process starts with the exploration of people's own situations. RAC works experimentally, which means that ideas are formulated in the form of hypotheses of action and organisation. How to act? How to organise? Actions are carried out and evaluated, which then lead to a new assessment of the situation and to new hypotheses of action. Through the open structure of RAC and the circular process of research and action, all the participants have the chance to arrive at new perceptions and to acquire new knowledge.

Setting up net selling and treatment centres in N'Djaména

Partnership and collaboration at various levels were considered as crucial for the project in order to increase and strengthen relationships and exchanges of expertise in

the field of urban environmental management. The development and sharing of ideas, concepts and activities between local people (associations), institutions (Programme Nationale de Lutte Antipaludique (PNLAP), University of N'Djaména) and an NGO (Swiss Tropical Institute) was a crucial part of the project. Nevertheless, the primary carriers of the project were three neighbourhood associations, active in the field of health and environmental management. Two of them were women's groups.

At the beginning of activities, the situation was assessed together with each association. University-based and popular researchers evaluated mosquito and net-related problems in their immediate environment by asking the following questions.

- Where do mosquitoes reproduce?
- What are the means of protection in use?
- How many people already know about ITNs?

The aim of this research process was to have greater knowledge about the actual status of the issue in question

and to help people to look clearly at their behaviour patterns and those of the rest of the community (Othingué et al., 2000, p. 171). The inquiry showed that malaria is perceived as an important health problem and that people contribute substantial resources to its treatment and prevention.

For members of the associations, the field research was a source of gaining knowledge about malaria transmission and the malaria prevention practices of inhabitants. The experience showed that basic knowledge about malaria issues helped association members to provide further information to potential clients and to pursue more convincing marketing strategies for ITNs. Further association members, involved in the research, found how information about the immediate environment can be gained and how, subsequently, it can be structured for better assessment of the situation and for shaping planning actions.

There were different stages in the process of the establishment of the treatment and commercial centres and various problems to overcome. First, the associations worked out a proposal which included details on procedures selected, prices of services, indemnities for workers, location of the commercial centre, organisation of sales/promotion, administration of the centres, replacement of the stock etc.

Above all, economic issues were new for many of the associations' members. Women members in particular contributed useful information from their experiences with daily street commerce to the project, but in contrast to this small-scale activity, the establishment of impregnation centres needs a long term assessment. Planning is more complex if centres want to become economically sustainable. The principle of cost recovery was hard to achieve. Results of the first months showed the groups that the initial assessment had to be changed. In the beginning, prices of nets and impregnation were low, which led to low revenue being generated. In the course of time, associations tended to introduce higher prices, which promised higher incomes but the number of buyers decreased. Without going into more detail, this example shows the logic of the RAC approach, where failures are important experiences which push the actors to re-examine their hypothesis of action and reassess the situation. Hence benefitting from experience leads to the development of new insights around the issue, sometimes fundamentally changing action.

Another point, which made the groups rethink their procedure, was the problem of obtaining cheap ITNs which could be afforded by the local population. There is no industrial or local production of ITNs in Chad, so the groups tried different channels for supplying the nets, first in Cameroon and later in Thailand. One association even

produced nets themselves, made from imported cloth, but this forced up prices even higher. So all associations changed to ready-made mosquito nets, although prices were still extremely high due to importation taxes. As a result, only the better-off parts of the population could afford the nets. The associations have not yet found a solution to the problem of high prices.

In the first months following the establishment of the centres, some dozens of ITNs and insecticide treatments were sold. However, it quickly became obvious that local residents were unaware of this new technology and the number of impregnations sold decreased. As a result, marketing methods became a very important part of the project. With the help of the facilitators, groups designed posters, advertised through door-to-door campaigns and organised radio broadcasts, in order to increase selling and treatment rates.

Over time, it became clear that the centres found it hard to be economically sustainable. The incomes of the centres were low and only small indemnities could be paid to the staff. So, the number of active group members started to decrease, as people had to earn a living elsewhere. This revealed a more general problem of voluntary associations, where it cannot be expected that people with very low incomes will be able to invest a lot of time in voluntary activities. The result was that people participating had strong personal financial interests around the centres, but the income from associations' activities was not enough to remunerate every member.

Another problem was caused by the organisational and administrative skills required for the adequate functioning of a commercial centre. Most of the associations had difficulty in sharing tasks between members, carrying out campaigns or administrating the money collected. By supporting the associations, most of these issues could be improved, for example by training in book keeping or opening accounts banking the collected money.

Even though it appeared that it might be difficult to sustain the centres run by the associations, nevertheless the RAC approach revealed the potential of the associations in identifying solutions for the promotion of nets and their treatment with insecticide. The associations generally structured the progress of activities and the process of learning and capacity-building themselves, instead of adopting pre-structured procedures and knowledge from outside.

Through regular meetings and workshops, the members of the associations had many opportunities to develop their capacities for communication and negotiation with institutional actors. Thus the RAC approach showed clearly that it has potential for:

- the empowerment of participants, including grass-roots

initiatives, for the management of the urban environment;

- acquisition and exchange of knowledge; and,
- 'capitalisation' of experience resulting in improvements of malaria control activities at local and city level.

Conclusions

The Research Action Capacity-building approach revealed that there are three strands of reasoning underlying the promotion of insecticide treated nets in urban contexts: technical, economic and social.

On the technical level, an innovation could successfully be introduced and adopted by the local actors organised within associations. Mutual research activities between members of the associations and the facilitators have shown that there is a demand from the residents for impregnated nets. After training on technical issues concerning impregnation, the associations were able to provide services of adequate quality. According to the RAC approach, when facilitators or specialists introduce new techniques – in our case, the impregnation of bednets with insecticide – these must be such that community groups can manage them themselves. In conventional projects, the transfer of knowledge and techniques is often one way and at one level; i.e. from specialists in the North to specialists in the South, with popular actors being excluded from the process.

On the economic level, the sustainability of selling nets and establishing impregnation centres was found to be very fragile. This was mainly due to the high prices of nets and impregnation services, making them too expensive for the majority of the urban population. This is particularly true in N'Djaména, as the economic conditions of the local population are very bad. Thus, economic constraints exclude the urban poor and most vulnerable groups from this technology. In order to redress this situation, efforts have to be made to find solutions for cheaper or subsidised ITNs as well as exemption mechanisms for the urban poor, i.e. finding ways to provide the technology to the urban poor without penalising them due to the high costs involved. For example, they could be offered reduced or subsidised net prices. At the institutional level, one aim could be the exemption of nets from importation taxes. However, through the setting up commercial centres, the members of the associations have developed knowledge in commercial thinking and management of micro-enterprises. Even if the centres remain unsustainable, these capacities and skills are very likely to benefit future activities.

On the social level, the RAC framework valued not only visible 'success stories', such as, for example, a high number of services and items sold in the case of the promotion of ITNs, but more importantly, skills and

capacities in communication and negotiation. Thus, the activities initiated could strengthen the organisational skills of the associations in an important way, for example, negotiation with institutional actors (NGOs, Ministry of Health), new ways of reflection, knowledge about economic issues and about handling techniques and technologies. These skills can be very useful for further activities of the associations in the field of urban environmental and social management and also for personal activities of the members.

The project showed also how collaboration, partnership and communication between popular and institutional actors (PNLAP, STI, University of N'Djaména) govern sustainable management of the urban environment. Key events in the process of action research are the regular meetings and workshops at local, regional and international levels, with all partners and actors involved. They provide an efficient platform for exchange, discussion and readjustment of the activities, findings and consequences. More importantly, they create an interface for donors and organisations that can help with the solutions and initiatives of urban inhabitants.

Georg Felber, Swiss Tropical Institute, Socinstr.57, 4002 Basel, Switzerland. Tel: +41 61 691 68 51; Email: g.felber@bluewin.ch

Nadjitoinan Othingué, Centre de Support en Santé Internationale, N'Djaména, Chad. Tel: +235 52 30 74; Fax: +235 52 37 22; Email: cssiitsn@intnet.td

N'Diékhhor Yemadji, Centre de Support en Santé Internationale, N'Djaména, Chad, and Department of Geography, University N'Djaména, Chad. Tel: +235 52 30 74; Fax: +235 52 37 22; Email: cssiitsn@intnet.td

Kaspar Wyss, Swiss Tropical Institute, Socinstr.57, 4002 Basel, Switzerland. Tel: +41 61 284 81 40; Fax: +41 61 271 86 54; Email: kaspar.wyss@unibas.ch

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