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Analysing problem-solving in the ICRC's Water and Habitat Department: A humancentric approach

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CENTRE FOR HUMANITARIAN LEADERSHIP

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Abstract

The Water and Habitat department (WatHab) of the International Committee of the Red Cross (ICRC) is an engineering department dealing with technical problems in humanitarian contexts. This paper outlines research that used humancentric design (HCD) as a framework to analyse the problem-solving process in the WatHab department. The project took a qualitative approach to data collection and analysis, with 16 interviews conducted with WatHab engineers in five countries. Viewed through a HCD lens, the research found that there are a lack of clear systems within WatHab to include beneficiaries in the problem-solving processes, issues with departmental planning processes, which focus on yearly plans, rather than the longer-term planning needed to respond to the root causes of issues, and a tendency for WatHab staff to think more with their technician hats rather than their humanitarian hats. The research advocates for the importance of creating new and more inclusive solutions, while keeping in mind the realities on the ground and the impossibility of satisfying everyone.

Leadership relevance

This research questions the current decision-making process in WatHab and its relevance to beneficiaries. Through this research, it will be possible to identify the gaps and the shortcomings of the current practices and address them in a systematic manner. The research aims to improve the response of humanitarian interventions when viewed through an engineering lens, by emphasising the importance of understanding the root cause of the issue rather than just the technical side.

This article is based on a master's thesis submitted as part of the Master of Advanced Studies in Humanitarian Leadership at the University of Lucerne. All the claims, views and opinions expressed in this research are solely those of the author and do not necessarily represent those of the International Committee of the Red Cross (ICRC).

Introduction

The International Committee of the Red Cross (ICRC) is a Swiss humanitarian organisation, established in 1863. It is neutral, impartial and independent in its work. It aims to protect the victims of armed conflicts and to provide them with assistance. The ICRC works in almost 100 countries around the world (ICRC, 2021). The beneficiaries of the ICRC are the communities affected by the conflict.

The Water and Habitat department of the ICRC is an engineering department that implements projects in the domain of water, sanitation, energy and construction. The department consists mostly of engineers, architects and technicians. The members of the team are hired based on their technical skills and are professionally trained to solve technical problems, and the department works within identified codes and standards for each technical issue. But is this enough when working in humanitarian contexts? Research points to the lack of soft skills for engineers, such as communication and integration of different perspectives (Carlson & Wong, 2020) and the need to foster more creativity in university studies (Goel, Sanjay & Sharda, Nalin, 2004).

The members of the team are hired based on their technical skills and are professionally trained to solve technical problems, and the department works within identified codes and standards for each technical issue. But is this enough when working in humanitarian contexts?

This research is motivated both by this desire to investigate the application of humancentric design to technical engineering questions, and by the need to better invest resources and to respond to beneficiaries in a timely and organised manner. To do this, the research attempts to understand the proximity of problem-solving processes within WatHab to beneficiaries.

The ICRC's *Accountability for Affected Populations* report highlights a clear gap in the organisation's engagement of people affected by crises in activities and planning (GPPi, 2018). Two main challenges in engaging communities are identified. The first is the trade-off between investing more in breaking down the problem and engaging the widest community representative sample possible, and the real implementation of activities (GPPi, 2018). The second is ensuring a representative sample of people in the consultation process, particularly in urban settings, given the difficulties in reaching the whole population and the consequent need to define who should be consulted (ICRC, 2015).

To understand the realities of the situation in a more stable environment, and accounting for the two constraints mentioned above, this research will focus on protracted conflict contexts. The ICRC spends two thirds of its resources in such contexts and has a better understanding of the political and cultural complications (ICRC, 2016). Similarly, the research does not tackle urban technical problems with large numbers of beneficiaries but rather smaller projects with a limited number of beneficiaries.

This research seeks to understand to what level WatHab is humancentric in these specific conditions and is guided by humancentric design methodology (HCD).

The goal of the research is to identify the gaps in WatHab problem solving processes in protracted armed conflict contexts. This means focusing on non-emergency, beneficiaries-oriented projects that deal with affected people directly and not with technical authorities.

The research assumption is that: *There is a lack of proximity to beneficiaries in WatHab problem solving processes in protracted armed conflicts.*

The research question will then be: *Thinking in terms of humancentric design, what are the gaps in WatHab problem solving processes in protracted armed conflicts, in non-emergency situations*[1]*?*

Theoretical background and key concepts

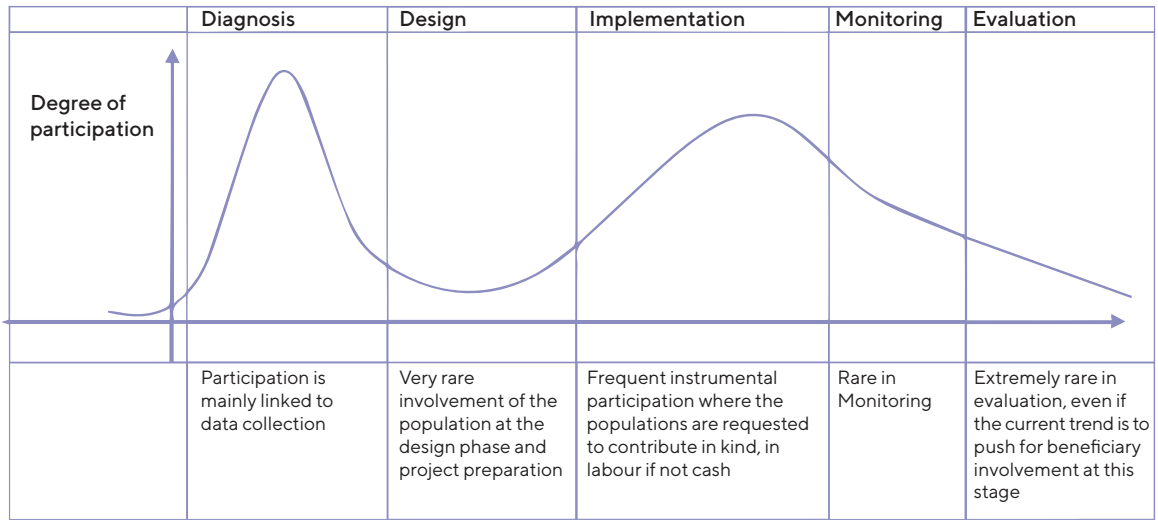
Beneficiary engagement in the humanitarian world

The engagement of beneficiaries in the humanitarian sector in the past has been disappointing (Davis, 2007), and it is clear that there is still a long way to go before humanitarian organisations can claim meaningful consultation with their beneficiaries (Darcy & Clarke, 2013). Limitations in the scopes of engagement and a lack of in-depth and long-term studies and evaluations are just some of the issues needing to be addressed. Many of these shortcomings are related to time pressures, short-term programming, and the 'can-do' culture of humanitarian agencies (Brown, D., Donini, A. and Knox Clarke, 2014).

This engagement also varies with the phases of the project cycle, as per Figure 1 (Grünewald, F. and de Geoffroy, 2008), which shows a significant reduction in the consultation of beneficiaries in the design phase.

[1] In protracted conflicts, most of the activities are not emergencies, however there is still a percentage of emergency interventions in protracted conflicts that the research does not focus on.

Figure 1: Levels and types of engagement at different phases of the project cycle



Source: Grünewald, F. and de Geoffroy, 2008

Key concepts

The research will focus on the problem-solving processes of WatHab and aims to identify the gaps and suggest some solutions. Therefore, it is important first and foremost to identify what a problem is and what framework is being used to measure proximity to beneficiaries.

Problems and problem solving

A problem is a situation in which something is wrong or less than ideal. "A problem does not exist abstractly, but always from someone's point of view. What one person may regard as a problem may be a satisfactory state for someone else" (Brest et al., 2015, p.3).

Solutions to a problem may take different forms. Sometimes the solution is simply a decision to do or refrain from doing something. Sometimes it is the adoption of a policy and sometimes it is a strategy; a linear description of the assumptions, inputs, activities, and outputs leading to a desired outcome (Brest et al., 2015).

Problem solving is needed on a daily basis, and for individuals to solve problems they need to access and process information, evaluate the consequences of possible choices, and learn from previous steps, aiming eventually to achieve the goal (OECD, 2015).

In most models for problem solving, including the eight disciplines (Alexa & Kiss, 2016), Plan, Do, Check, Act (PDCA) (Martin & Martin, 2009), and Observe, Orient, Decide, Act (OODA) (Rule, 2013), there are common elements:

- Defining the problem
- Finding solutions
- Implementing the solution
- Evaluating the solution

Human-centered design

The definition that we will use for HCD comes from the design and consulting firm IDEO (the creators of the HCD concept in its modern form), where it is introduced as a tool to engage the end users in each step of the design.

"Human-centered design is a creative approach to problem solving. It's a process that starts with the people you're designing for and ends with new solutions that are tailor made to suit their needs. Human-centered design is all about building a deep empathy with the people you're designing for; generating tons of ideas; building a bunch of prototypes; sharing what you've made with the people you're designing for; and eventually putting your innovative new solution out in the world" (IDEO, 2021a).

HCD step by step

This conception of HCD is split into three phases (IDEO, 2021b): inspiration, ideation and implementation. In order to implement HCD as a problem-solving method the following detailed steps are used (Brest et al., 2015):

Define the Problem (Inspiration)

- Describe the problem
- Identify the relevant stakeholders, understand their motivations, behaviours, and needs
- Identify whose problem it is
- Describe why the problem is important to the decision maker
- Describe the ideal world in the absence of the problem
- Reconsider your statement of the problem and ask what strategies may best achieve your goals
- Identify the beneficiaries' needs
- Learn whether other organisations are addressing the problem effectively

Frame the Problem (Ideation)

- Articulate and prioritise the needs that you will address
- Revisit key stakeholders to understand their motivations, behaviours, and needs and the systems in which they operate
- Identify barriers to moving from the present state to the ideal state
- Articulate "design mandates" and posit strategies that could transcend barriers, address needs, and facilitate change
- Brainstorm questions emerging from the design mandate
- Select several promising strategies from those generated
- Turn the selected strategies into logic models and compare them to one another

Implement, Observe, Learn, and Evaluate (Implementation)

- Prototype the selected solutions to test for their viability
- Implement and evaluate

Protracted armed conflicts

The ICRC considers that protracted conflicts are "characterised by their longevity, intractability and mutability" (ICRC, 2017), although there is no clear definition of the duration needed for a conflict to be considered as protracted.

These are critical contexts to consider from a HCD perspective, as the exacerbating effect of long-term conflicts on the needs and vulnerabilities of beneficiaries increases suffering from both a humanitarian and a development point of view. All this adds to the importance of a more thorough examination of these contexts (Policinski & Kuzmanovic, 2019).

ICRC approaches

The ICRC publication *Protracted conflict and humanitarian action* (2016) recommends that: "It is important that the ICRC learns new ways to listen to their views (beneficiaries) and involve them in the design and evaluation of the ICRC's work. Without such communication, it is unlikely that ICRC operations will remain relevant and respected". This statement emphasises the need for working more on the humancentric approach, especially in protracted conflicts, as "... the longer the ICRC works in a protracted conflict, the more it can rightly be expected to incorporate the proposals, views and criticisms of people with whom it works" (ICRC, 2016).

Methods and data

There is a clear need to better understand the level of engagement of beneficiaries in a technical department such as WatHab. Therefore, the research question is:

> *Thinking in terms of humancentric design, what are the gaps in WatHab problem solving processes in protracted armed conflicts, in non-emergency situations?*

This research used a qualitative data collection method. The researcher conducted interviews and analysed the data from five contexts (South Sudan, Palestine, Iraq, Syria and Nigeria). All these contexts are defined as protracted armed conflicts by ICRC. The interview questions are based on the steps of HCD introduced earlier.

The respondents were 16 WatHab engineers—12 men and four women. They were a mix of national staff[2] (10) and mobile staff[3] (6), with different lengths of work experience with ICRC varying from six months to 23 years, for an average of eight years. Their average career experience was 14 years.

Limitations

The qualitative method of the research limited the number of participants to 16 due to the time required for such interviews, the time limit of the research and the operational realities in these contexts. The research focused solely on the approach to technical problems that WatHab faces in protracted conflicts, and especially the problems related to projects implemented directly with beneficiaries rather than the projects implemented with technical authorities. This limits the scope of the research to just one type of problem solving.

In addition, the research focused on identifying the differences between WatHab process and HCD and detecting the gaps between the two. However, it did not address any solutions, or ways forward, although some of them appeared in the respondents' input.

Finally, as the author is also a senior manager in the WatHab department, this may have led to some bias in the results and the highlighting of certain ideas. It may also have impacted on the way more junior staff responded to questions.

[2] National staff are staff working in their home country delegation.

[3] Mobile staff are staff from outside the country working in a delegation. They work for limited period in each country (a 'mission') as per their contracts.

Discussion

In this section, the results will be discussed and compared to the literature to show the final outcomes of the research. The discussion will be split into the three main components of the HCD problem-solving process discussed earlier. The HCD lens will then be removed to summarise the main findings.

WatHab and HCD: Defining the problem

Investigating the ways WatHab engineers define problems in their work and whether they apply an HCD lens to projects revealed many traits in common throughout the department.

Culturally, the technical approach is still the main way of thinking about and identifying problems. This was very well expressed by Participant 6, who said: "Most of the times in WatHab, we tend to think that we are only dealing with pipes and pumps, but then we forget that we're dealing with people". Additionally, problem identification is not viewed as a separate project component in and of itself—it is always linked with the solution available, as Participant 2 remarked: "Within ICRC we take it to ourselves that we have some idea of the problem.... So, to some extent, it is already identified that there is a water problem, and as we go, we are not really talking so much about the identification of the problem, but rather be looking for solutions to the problem".

> ***"Most of the times in WatHab, we tend to think that we are only dealing with pipes and pumps, but then we forget that we're dealing with people" —Participant 6.***

Members of the department are invested in doing a good job and analysing problems to the best of their abilities, a trait that appeared in all the interviews through the engagement of each participant in explaining to what depths they go to identify problems. The main issue was that all this explanation focused on how WatHab identifies the technical problem—not the humanitarian issue that resulted in this problem. Participant 8 said, "we are mostly considering ourselves engineers .... we stay quite focused on the delivery, and the implementation side of it, rather than the humanitarian cadre of work of intervention".

The research found that there are a lack of clear mechanisms to identify problems, engage communities and reach the root cause of issues. It became clear that that there is a real need to create a process of community engagement and to train people in it. Some components of WatHab's work in Iraq are exceptions, where there is an ongoing initiative for ensuring the integration of beneficiaries in all project steps (known as the Durable Returns Program or DRP). Several of WatHab's Iraqi projects implement the DRP—a step by step process that starts by forming a community working group consisting of representatives from all layers of the community and then continuing to consult with this group throughout the project's life. Participant 7 reflected: "we use something called the community working group through the early stages of the project ... they are representing the community and assisting the ICRC in implementing the projects ... the members of the community working group, like to be nominated by the community themselves... And this community working group will continue to work with ICRC all along the project period, from the beginning of the project, until the end".

The interview process also revealed that departmental planning strategies could be changed from yearly to multi-year cycles, which would allow WatHab to better plan for longer term interventions rather than changing tacks or funding mid-project. In addition, a need for more interdepartmental and multidisciplinary approaches to project planning would diversify the parties involved in identifying the problem. Participant 6 noted: "We've even had a couple of consultations with all the heads of the departments together, but then they start going back to the bad habit of immediately focusing on a solution without understanding the context".

There is also a clear need to involve beneficiaries more. Defining the problem is far from being beneficiary-led, since the identification of the problem is almost equally determined by input from internal and external stakeholders. Beneficiaries, who through an HCD lens should have the main share in determining the problem itself, are considered one part of a suite of external stakeholders. According to the responders, input from external stakeholders represents 57% of the problem identification percentage, and beneficiaries make up a smaller proportion of this number.

In summary, WatHab appears to be identifying problems from a technical perspective with limited input from beneficiaries. That does not mean that these two types of input are not already intersecting or overlapping partially or fully, but it does show that the current problem identification process is a result of a mix of factors rather than a specific process. When beneficiaries raise issues, they are not always heard and sometimes their views do not correspond to the WatHab team's version of reality. Participant 15 noted that, "You will be shocked to hear the priorities from the angle of the beneficiaries. And if we also have to give our own practice, as ICRC, you will also be shocked ... because if you ask me, shelter and water should be the most important thing for now. But if you ask maybe the

community, they might say, health". Reflections like this should encourage WatHab to be more modest and listen more to what people are really expressing and step down if there is no real need. Identifying the problem does not necessarily mean an increase in budget or an increase in resources but rather an understanding that will be the basis for a better solution, as discussed by Darcy and Clarke (2013).

WatHab appears to be identifying problems from a technical perspective with limited input from beneficiaries.

However, moving towards the greater involvement of beneficiaries in understanding the problem is not easy or straightforward, it will take time and is full of obstacles. The Iraqi experience is a clear example of that, with Participant 8 remarking that, "when we started the DRP … it took us the first nine months a very intense presence on the site. And at times of every single day of 3 - 4 weeks. We had a guy spending five hours in the communities. By the time the project ended. We knew them by heart essentially. And they had to come up to us to tell us and we still discovered things that we didn't know even after nine months". This statement corresponds with reports stating an increase in efforts to listen to beneficiaries (Oxfam, 2012), but also emphasises that there is still a long way to go, as discussed by Chapelier and Shah (2013).

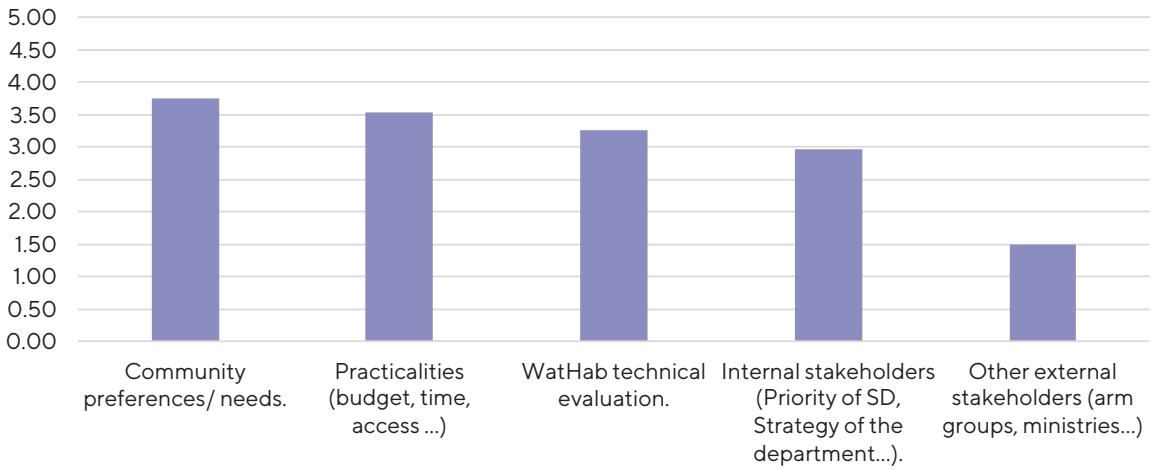
WhatHab and HCD: Selecting a solution

When considering interview questions focused on the processes within WatHab for selecting solutions to problems, the respondents focused on the technical perspective of developing solutions, mentioning discussions with internal and external technical experts as providing guidance for their decisions—a normal process in a technical department. However, when asked how WatHab chooses one solution over another, the interviewees were given five elements to rank as more or less influential in choosing one solution over another. The elements were:

- Beneficiaries' needs
- Practicalities (budget, time, access)
- WatHab technical evaluation
- Internal stakeholders (office priorities, departmental strategy)
- Other external stakeholders (armed groups, ministries, etc.).

The results show that beneficiaries' preferences came first and WatHab technical evaluation came third. This raises a question: if the beneficiaries' preferences are the most important factor in choosing a solution, even compared to technicalities, why are they not mentioned, in most cases, in developing these solutions either through technical or non-technical representatives? The answer might be the lack of clear procedure on how these beneficiaries need to be involved in solution development, at what stage and to what depth. This could be developed in a straightforward way in many communities, which already have technicians who could be part of the solution development when the discussion is purely technical (level of water, space available), while at the same time having representative committees of community members to represent the user experience in what makes sense and what does not. This was summarised by Participant 6 who said, "if we really want to have a solution that really reflects the ground reality, then solutions have to be developed together with the stakeholders". We can see this reflected in Figure 1,

Figure 2: Solution selection priorities



where design is one of the phases where the community is engaged least.

> ***"If we really want to have a solution that really reflects the ground reality, then solutions have to be developed together with the stakeholders"—Participant 6***

Referring back to Figure 2, the fact that the first four elements are so close to each other reflects both the lack of clear orientation in the department on where to look first, but at the same time shows how flexible and adaptable the department really is, by giving priorities to different elements depending on different contexts, and drawing from real life experiences and examples.

Most respondents also commented on the need for creative solutions, however the concept of 'creativity' differed. Creativity was generally expressed as coming up with technologically advanced methods, which is not manageable in many cases and not needed at all in others. For example, in developed urban contexts where WatHab supports Internally Displaced Persons (IDPs), the maximum that can be done by humanitarian organisations cannot replace the existing systems people had prior to displacement. Therefore, whether the solution is creative or not, providing water through taps to individual temporary shelters will not be possible in most cases, and will not get people back to what they had before. WatHab can be creative in the way a solution is implemented by simply applying some small tweaks to the original usual way of doing things. As Participant 10 said, "the plan itself is creative, but not the technical solution". This kind of thinking will help make the department more flexible and adaptable to the context.

Outside of this individual thinking, there are still many barriers that need to be addressed to allow such creative trials and thinking outside the box, including:

Internal culture. Cultural change is hard, since culture is the accumulation of many unspoken rules. The main action in relation to this needs to come from high up in the WatHab department, with management encouraging innovation and creativity by celebrating these experiments regardless of success and failure. At the same time, it would be beneficial to develop an exchange of ideas between different contexts so that diverse implementation experiences are considered. Creativity could also be another scale to measure the performance of WatHab's engineers.

Internal procedures. New procedures are needed to support long-term thinking and projects. In addition, testing creative solutions and experimenting with them will need different types of planning and a different way of looking at results. This could couple with longer mission[4] durations for mobile staff so they have the time to understand and then to implement new 'custom-made' solutions. Another element to consider is to balance the skillsets in each delegation to create technically and cognitively diverse teams, since a wide range of specialisations and problem solving strategies could allow for greater possibilities for adapting solutions to realities (Reynolds & Lewis, 2017).

Internal resources. Lack of resources impacts both problem framing and the creation of solutions, and the need to implement solutions fast was mentioned by many interviewees as the main drive in the department. How to better combine this timeline with high quality responses could be the responsibility of a new WatHab research department, although outsourcing problems from their contexts could also mean a loss of connection to reality.

External factors. These factors are the hardest to tackle, since they are out of WatHab control. The main way forward with this element is to listen, discuss, understand and work together with external stakeholders. Creative solutions aim for better outcomes but if external stakeholders are not comfortable with the change then it is not needed.

The results received from the survey intersect with literature that encourages innovation to get better outcomes (Cinderby et al., 2021), and show that creativity could be better utilised in WatHab by overcoming mainly internal obstacles. Nevertheless, while creativity within the WatHab planning environment may be helpful in understanding the bigger picture of adapting solutions to realities, at the same time, it should not be done just to tick a box.

WatHab and HCD: Implementing solutions

From the results of the interviews, there is a clear gap between the outcomes achieved and the tools to measure this outcome. Respondents identified that there is no standard process to measure outcomes at WatHab, although the majority are nevertheless convinced that their solutions lead to good outcomes. A lack of monitoring and evaluation (M&E) does not mean that WatHab solutions are not leading to good outcomes, but such a conviction needs evidence to confirm or deny it. In Iraq, where more community engagement is in place, Participant 8 noted that "your accountability officer will be there, people will come and tell you some information about the way they perceive the project or what they

[4] Currently, ICRC missions for international staff vary from 12 to 24 months for engineering positions, and up to 36 months for management positions.

would have seen better or worse, but that goes nowhere. It's absolutely not captured ... there is an absence of structured feedback ... the feedback is, [from] the Community Call Centre (CCC)". The participant who had access to this information did not reveal how the local community evaluates WatHab projects in addressing problems, but preferred to wait and see the results of the CCC survey, since it is a new experiment. This reflects a sentiment that was often mentioned: "teams are doing good work" (Participant 14), which would be better supported by figures and indicators, especially coming from a technical department that does technical studies based on codes and standards.

M&E is weak at WatHab, which was demonstrated in both the survey results, and reflected by Figure 1, where the level of engagement of the beneficiaries in monitoring and evaluation varies from rare to extremely rare. However, there is always a lot to gain when this exercise is applied, and even if most of the examples given by participants were purely technical, these types of projects benefit when there is reflection on the operation and the efficiency of the intervention. It would be beneficial for the department to establish and strengthen these processes.

Conclusions

This discussion focuses on summarising the main gaps in the problem solving that were demonstrated after removing the HCD framework. The crosscutting gaps that were identified are:

The need for processes. This was mentioned in almost all the steps of the discussion, whether it is the problem identification, solution selection, outcome measurement or M&E, and indicates that creation/clarification of a single process for the involvement of beneficiaries is a matter that should be addressed at the highest headquarter (HQ) and country levels. The framework used in Iraq seems to be working well and could be built on for use in other contexts.

Technical solutions. The WatHab department consists mainly of engineers, architects, and technicians. Their work is judged and tested on their technical skills. At the same time, the organisation is in many cases dealing with complicated environments that will require a lot of tweaking for a technical solution to fit. The fact that a technician is doing a humanitarian job first and foremost needs to be discussed and better understood by WatHab management and staff. One participant gave an example of his work that he presented to his senior engineer, who told him: "this proposal is without any heart". It took him time to understand what that means. This is exactly the reflection that is needed in WatHab: "designing with heart".

One participant gave an example of his work that he presented to his senior engineer, who told him: "this proposal is without any heart". It took him time to understand what that means. This is exactly the reflection that is needed in WatHab: "designing with heart".

General planning. Short term planning can be a limiting factor when involving beneficiaries and creating better responses. Protracted conflicts are long and complicated, and solving a problem and getting to its roots requires time and long-term planning. With the current cycle of one-year planning, it is not possible to identify the root cause of a problem and to respond to it properly, and without this shift to multiyear planning in these contexts, teams will keep limiting themselves to clear, simple, manageable outputs. If SMART objectives are limited to one year, both outcomes and impact management are harder.

Another issue that deserves further discussion and exploration in the planning area is logistics. The ICRC Logistics Department is moving towards standardising as much as possible, and the lead time for providing materials is getting longer. Standardisation is a clear limiting factor to innovation and to producing a proper and original solution for communities. Essentially, it adds to the 'ready-made solutions' mindset that encourages engineers to find a problem for the solution, not the other way around.

Creativity and innovation. If there is increased understanding from the WatHab team on what creativity and innovation mean in relation to their work, they may realise that they are already applying creative solutions to realities. However, there is a need for WatHab management to increase awareness in the department of this definition of creativity and at the same time celebrate innovation, so that the teams know they have the space to experiment.

External factors. There is a limit to humanitarian interventions and there is a need to accept that external factors play a big role in humanitarian work. For WatHab, this could translate into taking a more humble role, and listening more to people, and their fears, problems, points of view and solutions. WatHab team members need to go to communities with an empty cup and be open to discussions and solutions,

rather than a full cup, which has no space to add any extra new drop of input.

WatHab team members need to go to communities with an empty cup and be open to discussions and solutions, rather than a full cup, which has no space to add any extra new drop of input.

The results of this research correspond with many theoretical studies around the constraints in applying HCD in humanitarian crises. These constraints are related to context (cost, access, information and replicability), staff (skills, levels, attitude and behaviour), and structures and procedures (projectisation, institutional changes, measurement and reporting and the supply led paradigm) (Brown et al, 2014). This research also emphasises the need for creativity and innovation and elaborates on the need for procedures.

Future research

More work could be done to confirm the results of this research through quantitative methods, such as using unit level surveys to get a better understanding of the results and their relevance to WatHab team members in all protracted conflict contexts. In addition, research could be undertaken on the different solutions linked to the identified gaps, for example: would more training on innovative solutions help WatHab staff better involve beneficiaries? To what extent would an organised process affect the overall outcomes of the solutions?

More generally, additional research could be implemented in other technical departments of ICRC and in other humanitarian organisations to compare results and draw similarities, helping to clarify the attitudes of technical departments in comparison with organisational culture.

WatHab cannot please everyone, since everyone has their own expectations and vision of the problem and the solution. Nevertheless, the objective should always be to balance the needs of the people with the available resources and technical solutions to come up with the best mix. This would mean appreciating and understanding what has come before, and designing, creating and implementing better, more engaging and meaningful interventions with affected communities.

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