I would like to thank everyone at the IFRC-WCAZ for providing me this opportunity. It has been a tremendous experience for myself and it is with great sadness that I have to leave so soon. The work environment that the staff provides is exceptional. Everyone is friendly, open, and willing to help in any way they can. The accommodations and support provided at the guesthouse have exceeded my expectations and I am very appreciative. It would not have been possible for me to participate in this internship without the support of the staff and the provision of accommodation. For that, I owe a great debt of gratitude.

Although I will be departing Dakar shortly, I am leaving knowing that I will be back again someday. Hopefully that day will be sooner rather than later. I am hopeful that the work I have conducted will be of value to the IFRC and its partner National Societies. I have enjoyed working with the IFRC immensely and am hopeful that this is only the beginning of a fruitful relationship. Thanks again to all my friends.

The following is a summary of my one-month internship, including: my identified project objectives, the results achieved, and my final recommendations.

**Objective**

The overall objective of my internship was to posture the IFRC to provide exemplary service delivery to the vulnerable communities for which it serves by strengthening the capacities of its National Societies in terms of their climate change preparedness. The specific focus of my internship, building on work previously completed, was to research integrating climate science information into IFRC decision-making processes at the regional, national, communal, and individual levels. This research included: a detailed assessment of the current use of climate science information and identification of deficiencies at the WCAZ zone office; an examination of the current and future use of climate science information at the Senegal Red Cross; and an investigation of the process used to integrate the climate science and humanitarian aid communities.

**Background**

The first task I completed when I initiated my internship was to become familiar with the overall objective of the climate preparedness project. The IFRC (RC Climate Centre and IFRC-WCAZ) is committed to integrating the use of climate science information at both the strategic (international, regional, national, and organizational) and operational (communal and individual) levels. Through the Preparedness for Climate Change initiative, developing countries are given an opportunity to improve their understanding of the negative impacts of climate change for their country, their programs, and the communities in which they serve.

In west and central Africa, the IFRC regional zone office has started to apply the use of climate science information within their decision-making processes. They have an overall
objective of integrating this information into the decision-making processes of all the National Societies within the zone. To do this, they first require a baseline assessment of each national society's current use of climate science information and the relationships that they have with climate science information providers. This will be utilized to identify gaps and needs in information provision. Once this is completed they will then be able to work with each national society to facilitate the establishment of positive working relationships with climate scientists (both nationally and internationally) in order to fully integrate the two communities of practice (climate and humanitarian).

Specific project goals identified for my internship were to initiate this process with the Senegal Red Cross and then document my experience for use by future interns and/or climate focal points. Taking my identified project goals and the overall project objectives into consideration, it was clear to me that the development of a transferable engagement process was key to long-term project sustainability. I set forth to develop a process that could be replicated by anyone tasked with integrating climate science information into a given national society's decision-making, regardless of their knowledge of the climate sciences.

With this in mind, I identified the following project parameters:

- The process had to be replicable and sustainable
- It had to be user-friendly (eschewing technical climate science jargon)
- It had to align with overall IFRC project objectives
- It had to take into consideration variability in climate science knowledge between end-users
- It had to investigate reducing disaster risks among the most vulnerable communities where National Red Cross and Red Crescent Societies operate

Results

At the end of my one-month internship, the following results have been achieved: the completion of a Climate Preparedness Toolbox that contains all of the resources required of the intern and/or climate focal point to initiate the engagement process; development and distribution of a Climate Risk Management Questionnaire to assess the use of climate information at the RC WCAZ regional office and the Senegal Red Cross; development of a Climate Preparedness Facilitators Guide to be utilized by future interns or climate focal points to engage national societies in order to integrate climate science information into decision-making; and participation in the development and submission of a CCAA funding application for a flood early warning system in the communities of Brazzaville and Doual'la. I will also be submitting a final report summarizing the results of the questionnaires I distributed to the IFRC-WCAZ and the Senegal RC at a later date.
The following is a brief description of the project deliverables that I have completed. These deliverables were delivered to the IFRC-WCAZ Office, the Red Cross Climate Centre, and other project sponsors.

- **Climate Preparedness Toolbox**

The Climate Preparedness Toolbox was developed in order to compile (in one place) all of the initial planning resources required to initiate, facilitate, and sustain the engagement process. It is to be used by future interns and/or the climate focal points of a given National Society. The tools it includes will be invaluable in aiding the integration of climate science information into decision-making process. For each of the ten-steps within the Facilitators Guide, a corresponding tool(s) is identified for use. These tools include:

  - Facilitators Guide: described in detail below
  - Annex 1 “Climate Preparedness Questionnaire”: described in detail below
  - Annex 2 “Climate Preparedness PowerPoint Presentation”: this annex provides an introduction to climate change, climate variability, climate risk management, climate risks, climate change impacts, DRR vs. CRM framework, and sample case studies
  - Annex 3 “CRM Tools”: this annex identifies all of the CRM tools presently available for use in WCAZ, a brief description of each (data and timeframe), and identifies the service provider
  - Annex 4 “Climate Science Information Providers”: this annex contains a full index of all the climate science information providers currently available in WCAZ (national, regional, and international), a brief description of the services they offer, and contact links
  - Annex 5 “Pilot Project Examples”: this annex contains links to case studies and pilot projects involving the use of climate risk management tools

- **Climate Preparedness Facilitators Guide**

The Climate Preparedness Facilitators Guide was developed in order to provide future interns or climate focal points with a step-by-step checklist of actions that need to be taken in order to engage a given National Society into incorporating climate science into their decision-making processes. It outlines the recommended actions to be taken in order to facilitate the development of working relationships between the Red Cross National Society, humanitarian sector partners, vulnerable groups, and the climate science community.

It can be used as an overall recommended list of actions rather than a step-by-step plan. National societies (or other user groups) may have already accomplished some of the steps or may want to add additional steps to this recommended list. There aren’t any strict dates or deliverables attached to the steps. This guide simply outlines a recommended list of actions that will stimulate the engagement and integration process.
The guide was developed in a transferable format in order to facilitate its use within a multitude of organizations.

The ten-step process is broken down into short-term actions and long-term actions. It is expected that short-term actions can be completed in less than six (6) months from the project start. The long-term actions will take longer to complete due to the fact that they are dependent on the availability of funding.

*Note that the facilitators guide was developed to further the integration of climate risk management tools at the strategic level of planning. This aligns with the work completed to date regarding the promotion of climate risk management across all RC National Societies. As indicated within my final recommendations, I strongly feel that the most urgent need is the development and execution of community-based pilot projects. This is where the greatest benefit of CRM tools can be realized and should be the main focus of the IFRC. To this end, the facilitators guide includes a process for involving the end-users in the climate preparedness process as soon as possible.

- **Climate Risk Management Questionnaire**

The Climate Risk Management Questionnaire is to be utilized interns or climate focal points in order to assess the current and future use of climate forecasts in the decision-making processes of the IFRC and it’s National Societies. It was developed in a format that makes its use transferable to any national society, regional zone, or partner humanitarian aid agency.

The questionnaire serves to identify: gaps in current climate science information; overall work area needs, concerns, and priorities of personnel; climate science information needs of staff members and end-users; timelines for receiving climate science information in order to utilize it in the decision-making and planning process; preferred delivery format/method of climate science information; impediments to the current use of climate science information; preferred climate information sources and providers; and other key issues related to the current and future use of climate science information.

The information attained upon completion of the questionnaire will be very beneficial to incorporating climate risk management tools into decision-making processes. The results will be used to match user needs with requested climate forecast information, delivery time, and delivery method(s). This will then be operationalized in the form of policy development and pilot projects.

During my internship, I delivered the questionnaire to the IFRC-WCAZ and the Senegal Red Cross National Society.

- **Development and submission of a CCAA funding application**

During my internship I was presented with the opportunity to participate in the development and submission of an application for project funding from the CCAA. This
funding was to be used for the development of a flood early warning system in the communities of Brazzaville (Republic of Congo) and Douala (Cameroon). I contributed to various sections of the project, including: Overview of the Research Problem and Justification; Project Work Plan; Knowledge Sharing Plan; Monitoring and Evaluation Plan; and the Project Budget.

The burgeoning inner-city populations within the urban centres of Doualla (Cameroon) and Brazzaville (Republic of Congo) are becoming increasingly susceptible to flood risk. Increased flood frequency and intensity as a result of a changing climate along with a net increase in migration from rural areas into the inner city has led to a dramatic increase in the vulnerability of these communities. Risk reduction, through the use of early warning systems, is one way to increase the capacity of these groups and to mitigate the risk of flooding in these areas.

This project will use a multi-stakeholder approach to incorporate climate science with humanitarian aid work in order to develop flood risk maps, early warning systems, and contingency plans. It offers a prime example of the type of community-based projects that can be developed between the climate science, humanitarian, and aid communities. The use of climate risk management tools in project development and within the EWS can also be evaluated for use in future RC projects. It also utilizes a pilot project-based approach to establishing the exchange of climate information between the climate science and humanitarian communities.

- **Questionnaire Results and Research Findings**

The final deliverable of my internship will be the submission of a report detailing the research findings of the CRM Questionnaire. In order to develop a better understanding of the current and future use of CRM tools by the IFRC-WCAZ and Senegal RC, I distributed the questionnaire to staff within each of the three main climate-sensitive work areas: DM, Food Security, and Health. I am hopeful that the results of this questionnaire will glean new insight into the integration and use of CRM within RC decision-making and allow for its integration in other national societies.

At the time of this writing, I have only received two completed questionnaires out of a possible six. This can be attributed to scheduling conflicts, unavailability of recipients, or a general apathy towards the benefits of CRM. Some of the recipients have contacted me saying that they are committed to completing the questionnaire and I am hopeful this will be very soon. Once I have all of the questionnaires returned I will have a broad understanding of each work areas needs in terms of climate forecasts. This information can then be used to develop a tailored suite of CRM tools that match said needs and the corresponding service providers. This information will allow for replication of this project within other national societies.

The results will also provide valuable insight into the current impediments to the use of climate forecasts. Having an understanding as to why end-users are not currently utilizing CRM will be very helpful in developing the format and delivery of future CRM tools.
Using CRM to its fullest advantage entails delivering forecasts in a form and language that the end-user can understand and act on. The questionnaire contains questions relating specifically to addressing this problem.

Recommendations

The following are the recommendations that I have after spending one month working within the DM unit at the IFRC-WCAZ in Dakar. These recommendations are a result of the key insights and observations I have made during my internship. The three recommendations can each be implemented separately but they are not mutually exclusive actions and have been designed to work as one overall strategy. This overall strategy is illustrated in the conclusion of this report.

- Develop Pilot Projects

The most common concern that staff members at the IFRC-WCAZ have regarding the use of climate forecasts is the transfer and application to work being completed at the communal level. They understand the utility of climate information in planning at the strategic level but currently lack the framework to transfer this to the communities with which they work. This is largely a result of receiving complicated climate information and not being able to “translate” it into an understandable format for end-users. From my observations, I feel this is also a result of a top-down approach to climate risk management within the IFRC-WCAZ.

As it stands, the IFRC is focused on acting as the facilitator between the climate science providers, the RC National Societies, and vulnerable groups. This approach is not entirely without merit. The lack of a historical relationship between the humanitarian and climate science communities does necessitate that someone (IFRC) act as a climate advocate. Due to its position as the de facto representative for IFRC disaster risk reduction and climate adaptation policy within the region, the IFRC-WCAZ is well positioned to facilitate this communication.

To this end, the IFRC has focused on developing relationships at the strategic level between the climate scientists and its national societies. The issue that arises is trying to take the information that is gleaned from these discussions and developing climate forecasts for the vulnerable end-user groups. The main impediment to the use of climate information (as stated) is a lack of understanding regarding how vulnerable groups can benefit from it directly. Simply facilitating discussion between climate science information providers and National Societies does not address this issue. The Red Cross operates to serve the “World’s most vulnerable people”. Without including them in the discussion from the start will result in crapshoot climate information that, most likely, won’t align with their ongoing forecast needs.

I believe that a shift in focus is required with this project going forward. It is apparent that in order to produce climate forecasts that are useful to end-users (vulnerable individuals and communities), the climate information needs of those groups and their
valuable insight must first be understood. Trying to estimate the type, timeframe, and format of climate information required for the end-user without first consulting their opinion drastically limits the efficacy and utility of the final deliverable. This top-down approach simply propagates a continuance of the current communication void that exists between the climate science and humanitarian aid communities.

If it is the stated objective of the IFRC to implement community-based climate risk management within vulnerable communities, then members of those communities must be involved. The best option to develop CRM forecasts is to bring together all stakeholder groups (climate scientists, RC, MET services, volunteers, government, CBO’S, end-users, etc.) in order to entice positive discussion around adapting to the effects of climate variability within a given community. The insights and knowledge shared during these meetings and workshops will be invaluable in the development of useable climate information.

My recommendation is for the IFRC-WCAZ to pursue the development of climate risk management pilot projects as the starting point to the climate change preparedness initiative. This addresses both the overall objective of the climate preparedness project and the issues that have arisen to date with IFRC-WCAZ staff regarding the transfer of information to end-user groups. It would best serve the IFRC if personnel, end-users, climate scientists, and other stakeholders were brought together prior to developing the CRM forecasts. These meetings would facilitate the discussion of user needs and lead to the assigning of roles and responsibilities to all parties involved. It would elucidate the exact needs of all stakeholders and eliminate the necessity of the IFRC organizing multiple meetings with a plethora of different stakeholder groups. By eliminating a layer of bureaucracy, the IFRC would best serve all parties involved.

I state this recommendation with the full knowledge that the initial impetus for linking the national societies to the climate science providers directly was to break away from the current top-down hierarchy that exists. I simply feel that the integration of the end-user groups from the outset of the project would be more beneficial to the efficacy and sustainability of it going forward.

The use of pilot projects to develop a culture of climate risk reduction and to stimulate the use of climate risk management tools within the Red Cross is illustrated in the conclusion of this report.

- Establish a Climate Focal Point

As has been noted in previous recommendations, there is a need for a permanent climate focal point at the zone level. This position will facilitate the development of climate preparedness programs; provide expertise and experience; facilitate discussion and the development of relationships between the climate science and Red Cross aid communities; and provide encouragement and expertise to pilot project development.
The most obvious place for this position to sit would be within the IFRC-WCAZ regional office. This position would be primarily involved with strategic-level planning and would be best positioned amongst other strategic level decision-makers. As well, by being placed at the regional level immediate access to all national societies and regional partners is available.

The main role of this position would act as “boundary spanner” between the various stakeholder groups. This would include: facilitating pilot project development; ensuring IFRC climate adaptation policy and directives are being adhered to within the projects; identifying and securing funding for identified projects; helping identify other stakeholders groups; providing evaluation and reports of the various pilot projects; and acting as a clearinghouse of climate risk reduction information and research within the zone. I think the best option would be to have this position sit within the zone office but as its own entity. Having it placed within DM, Food Security, or Health would be counterintuitive to the desired role of this position.

The climate focal point will play an important role in facilitating the implementation of the other two key recommendations I have developed.

- **Integrating Climate Risk into the VCA**

  This is a relatively easy way to attain valuable climate risk information while also getting Red Cross National Societies to start integrating CRM into their activities. The RC conducts VCA’S are used by the Red Cross and Red Crescent to identify the key risks faced by a community and to plan strategies to reduce them. Assessments use community maps, historical/seasonal calendars, asset inventories, livelihood surveys, group meetings and interviews with locals to gather required risk and vulnerability information.

  By dovetailing with current VCA use, climate risk management becomes an item of conversation without having to develop an elaborate process for its delivery. Also, delivered in this fashion CRM is grounded in a community-based approach to risk reduction. This aligns with the IFRC disaster risk reduction framework. Used in conjunction with the other two recommendations, the VCA then becomes a valuable tool during the development of pilot projects and to draw-out a given vulnerable communities perceived climate risks and vulnerabilities. It also capitalizes on RC national society expertise by utilizing a process staff and volunteers are familiar with.

  The VCA serves to operationalize the CRM pilot projects.

**Conclusion**

As it currently stands, climate science information is only utilized at the regional level and higher. If the IFRC wishes to inculcate a culture of climate risk preparedness, this information must be made available to the communities for which it serves through to the Federation offices in Geneva. I strongly feel that the use of CRM pilot projects is the best opportunity to work with a myriad of stakeholder groups in adapting to our increasingly
variable climate in order to reduce the climate risks the World’s most vulnerable face. I have provided the following slides as visual a reference to the stated recommendations.

The following two diagrams illustrate the use of pilot projects in conjunction with the use of VCA’S in order to align CRM initiatives with DRR initiatives at the operational level (communal). These diagrams also indicate the major organizations and policies that govern both DRR and CRM implementation from the international through to the communal level.
The following diagram illustrates the use of pilot projects as a tool to bring together myriad stakeholder groups in order to operationalize CRM tools. It also indicates the number of diverse groups that may be involved in climate risk reduction activities. A pilot project offers a great opportunity to bridge the gap between climate science providers and end-user groups. It facilitates the exchange of ideas, concerns, and needs in order to develop the best CRM tools possible. It also serves to foster positive working relationships between the various groups in order to insure the sustainability of the climate preparedness project going forward and development of future cooperative projects.

Merci Beaucoup! This experience has been phenomenal and has served to further engender my wish to work within the international field. I hope to see you all again someday.