

MASTER OF PUBLIC HEALTH

Johns Hopkins Bloomberg School of Public Health & IIHMR University

PRACTICUM REPORT

By

Dr. Swamili Khurana

Cohort-3

2015-17

Under the Guidance of

Dr. Goutam Sadhu

Professor

IIHMR University

TO WHOMSOEVER MAY CONCERN

This is to certify that **Swamili Khurana**, student of Master of Public Health Program offered by Institute of Health Management Research IIHMR University, Jaipur in cooperation with Johns Hopkins Bloomberg School of Public Health, Baltimore has undergone Practicum Training at **Development Alternatives** on the topic **Climate Change and Climate Induced Shocks** from **February 2017 to April 2017**.

She has successfully carried out the study designated to her during practicum training and her approach to the study has been sincere, scientific and analytical.

The Practicum Training is in fulfillment of the course requirements.

I wish her success in all his future endeavors.

Sd-

Dr.Goutam Sadhu

Practicum Advisor

CERTIFICATE BY SCHOLAR

This is to certify that the Practicum Project titled “**Enhancing Climate Resilience in Children, Adolescents and Women in Rajasthan**” submitted by me, *Swamili Khurana* with Enrollment No. **IIHMR-U/07/2015-2017/0013** under the supervision of Dr. Goutam Sadhu for award of **Master of Public Health** carried out during the period *13th February, 2017 to 25th April, 2017* embodies my original work and has not formed the basis for the award of any degree, diploma associate ship, fellowship, titles in this or any other Institute or other similar institution of higher learning.

Swamili Khurana
MPH Candidate 2015-17



Development Alternatives

B-32, TARA Crescent
Qutub Institutional Area
New Delhi- 110016, INDIA
Tel: +91 (11) 2656-4444 / 2654-4100
Fax: +91 (11) 2685-1158
Email: tara@devalt.org
Website: www.devalt.org

26th April, 2017

TO WHOMSOEVER IT MAY CONCERN

I have known SwamiliKhurana since her association as a Fellow with Development Alternatives, beginning 13th February, 2017. She has committed to execute field activities expected of her as part of the Development Alternatives Fellowship programme for a year in the field.

Swamili is stationed in Udaipur, where she partners with a Deputy Manger from Development Alternatives to organise communities, leaders of local government bodies and district and block-level officials to work on a risk reduction project being implemented in a partnership with the United Nations Children's Fund (UNICEF).

As part of the project, Swamili has contributed to the designing and piloting a survey to determine levels of knowledge, attitudes and practices (KAP Survey) among children and care providers to assess information in communities on practices around water, climate change and risk reduction. She has also conducted Focussed Group Discussions in the in the community and prepared questionnaires and conducted in-depth Interviews with panchayat (local government) officials.

Besides this, she has also contributed to designing community and child centric activities keeping in mind the cultural practices and integrating subject of climate change in the same.

It has been a pleasure to have known Swamili and we look forward to her contribution to the project as a Fellow as well as her assessment and analysis that should help as we collate evidences to influence the discourse on policy development which are essential for a young development professional.

I wish her bright future as a public health professional that she aspires to become.

Warm Regards,

BIJOY BASANT PATRO

Senior Programme Director

Contents

1. Organization:.....	6
2. Project:.....	7
3. Key deliverables:	9
4. Practicum Goals and Objectives:	10
5. Deliverables at Office level:	12
6. Work done at the Field Level:	13
7. Learnings:.....	17
8. Conclusion:.....	20

1. Organization:

Society of Development Alternatives, New Delhi is a non-governmental organization established in 1984. Its vision is for sustainable development, livelihood generation, climate change and WASH.

Development Alternatives (DA), the world's first social enterprise dedicated to sustainable development, is a research and action organisation striving to deliver socially equitable, environmentally sound and economically scalable development outcomes. DA's green technology innovations are focused on habitat (core integral including water supply, sanitation and hygiene), water, energy and waste management. These innovations deliver basic needs and generate sustainable livelihoods, have reduced poverty and rejuvenated natural ecosystems in the most backward regions of India.

DA's Mission is to help eliminate poverty and regenerate the environmental resource base through methods that are highly scalable. Its activities broadly cover three primary areas that underlie any sustainable development process: the design and large-scale dissemination of appropriate technologies, rational environmental management systems, and equitable people-oriented institutions and policies. The DA Group innovates such eco-solutions to help meet the basic needs of all and works with partners, including government bodies, local entrepreneurs and civil society to market these in a commercially viable and an environmentally friendly manner to an ever-growing body of consumers.

1. Empowering Communities through multi-stakeholder action for
 - Institution Development with a focus on women and marginalised groups
 - Basic Needs fulfillment more specifically habitat, water, energy
2. Creating Green Jobs at a large scale through promotion and support of
 - Employment Skills for Green Job creation

- Enterprise Creation for Social Enterprises
- 3. Promoting and advocating Low Carbon Pathways for Development through the design and demonstration of
 - Natural Resources Management Models
 - Clean Technology Solutions

Thus, a conglomerate called Development Alternatives Group was set up, comprising five organisations. The non-profit Societies, such as the flagship entity Development Alternatives and TARA (Technology and Action for Rural Advancement) are responsible for research, innovation, policy, incubation of green businesses and technical support services

In the capacity of Development Fellow, I have been offered an opportunity to associate myself with the esteemed organization for the implementation of a project funded by UNICEF, Rajasthan.

Location: Udaipur, Rajasthan (Field Office); New Delhi (Head Quarters)

Duration: 13th February, 2017 to 13th April, 2017

Name of Mentor: Mr. Bijoy Basant Patro (Director, Communications Solutions Branch)

2. Project:

The project of concern is Enhancing Climate Resilience of Children, Adolescents and Women in Rajasthan. Recent climate shocks have been observed, noted and recorded by the Government of Rajasthan and United Nations Children's Fund, Rajasthan in the state apparent through various natural disasters such as, floods, hailstorms, etc. The state of Rajasthan is typically a drought prone state as droughts are the natural disasters that have been most frequently observed in the state. Low availability of water is due to the Aravalli

mountain range that divides the state into west and east Rajasthan from south-west to north-east. The mountains prevent the rain filled clouds to burst to the west of its range. Therefore, the geography, that is, sand and terrain of both the regions is vastly different. Different climate adaptive practices already exist in the community to cope with droughts. Moreover, the administration at district and state levels is well aware of the issue, hence, there is a dedicated mechanism at the state level to help the people cope with the situation. However, the past few years have seen a rise in flood like situations and hail storms in areas which were traditionally drought prone. These lead to destruction of livelihood generation patterns in the community, degradation of water quality and availability. The children are most affected in this scenario in many ways some of which are listed below:

1. Their parents migrate in search of better incomes;
2. They are forced out of school due to inability to pay for their fees;
3. Their health suffers due to malnutrition because of food shortage/inability to buy food due to crop failure; and
4. Rise in the communicable water borne, water based diseases.

The community does not possess the mechanism to cope with the changing situation. Even if they learn to cope, the voice of children and women is lost in such situations classified as emergencies.

The aim of the project is to build capacities of the above mentioned vulnerable section of society so that they are able to cope with climate shocks and mitigate the negative effects they experience due to such disasters. The approach used for the implementation of this project is basic. Baseline survey (KAP survey) will be conducted to determine the knowledge, attitude and practices regarding climate change, its causes and mitigation amongst the children, adolescents and community (women). Thereafter, post-analysis of the survey findings, activities will be designed to improve these three aspects after which,

an end line survey will be carried out to evaluate the effect of the intervention in the target groups. The target area of the project include two gram panchayats in one block of three districts of Rajasthan, which are, Jalore, Udaipur and Baran.

3. Key deliverables:

In this project, key deliverables for the fellow include the following:

1. Liaise with the stakeholders in the community, field officers, as well as government at the panchayat, block and district level as well as other government institutions such as school principals.
2. Designing the Knowledge, Attitude and Practices survey for the target groups, that is, children of age group 5-12 years, adolescents of the age group 13-17 years and caregivers.
3. Conduct the pre-test of the survey in control Gram panchayat.
4. Conduct the KAP survey, in target gram panchayats, after due changes to the tool mandated after the pre-test.
5. Implement all activities (planned at headquarters) post the analysis of the findings of the KAP survey.
6. Monitor the implementation of the project.
7. Design and draft monthly and quarterly reports.
8. Keep the team at headquarters and external stakeholders, that is, funding agencies up to date regarding the activities being conducted at the field level through minutes and reports.
9. Contribute to identification of policies and action plans at the state level that need to incorporate effects of climate change.
10. Contribute to policy briefs as well as advocate for changes in the pre-determined policies.

It was recognized that the individual in question will be able to hone a variety of skill set required for an illustrative career in the field of public health, including problem solving, data analytics, communication skills, cultural competency over the duration of the project. The project is closely associated with public health. Occurrences of emergencies as well as long term effects of climate change will both negatively affect the community's, especially, children's health. Malnutrition and water borne, vector borne, water based diseases are the most clearly predicted, although slightly distally related, effects of such climate shocks from droughts, floods and hail storms.

4. Practicum Goals and Objectives:

Selective core competencies will be developed by the individual during the course of the practicum training and one-year fellowship at Development Alternatives during the course of the project. These have been detailed below along with the goals and objectives under each competency

1. Analytical/Assessment Skills:

- a. Ability to design a questionnaire that provides information on key indicators for the project in relation to climate change and water use: KAP (Knowledge, Attitude and Practice) Survey.
- b. Ability to collect and analyze data, from the information collected through administering the questionnaire.
- c. Obtain and interpret data to define risks to the community

2. Policy Development/ Program Planning Skills:

- a. Feed risks (especially with the viewpoint of children) identified through the above mentioned competency and modified action plan into various policies at the state level, such as, for disaster risk reduction, climate change, etc.
- b. Participate in program planning and implementation.

3. Communication Skills:

- a. Formulate communication plans through input from stakeholders, especially, the state government (Rajasthan) and UNICEF, Rajasthan.
- b. Utilize learned skills to communicate effectively with the same stakeholders as well as the panchayat.
- c. Employ effective strategies of communicating with the media.
- d. Effectively communicate public health information, in relation to climate change and water use, using a variety of written and oral communication approaches.

4. Community Dimensions of Practice Skills:

- a. Create connections and collaborate with key stakeholders in the community, such as, Panchayat officials, school teachers, Aanganwadi workers, ASHAs, other leaders in the community.
- b. Ability to identify and maintain partnerships with stakeholders and community partners to promote effective and efficient water use.

5. Leadership and Systems Thinking:

- a. Ability to describe how public health operates within a larger system, that is, how climate change, and climate induced shocks can affect health of the community.
- b. Ability to identify/analyze organizational problems, that is, the complex nature of degrading level of public health and its relation to natural disasters and climate change and thereby, also with human activities occurring in the nearby geographic areas
- c. Ability to evaluate, improve and modify organizational practices in consideration of the changes of the public health system, that is, include special procedures for the most ignored, although most vulnerable section of the population, that is, children and women.

5. Deliverables at Office level:

In the past one and half months since I joined this project, I have contributed in the following ways:

1. Desk Research for Traditional and Cultural Practices in existence in the community:

It was noted that both slow and sudden changes in the environment forces the communities/people to adapt to ensure survival. However, all the adaptation practices are not always successful, which ultimately lead to negative effects in the community in all important sectors of life, that is, livelihood, food, water, health, etc. Therefore, a scientific exercise was conducted where the organization would be able to collate the best climate adaptive practices already in existence in the country as well as the target areas. The aim of the exercise was to study these practices and learn from them. Moreover, if any modification may contribute to enhancing the positive effect on the community, then suggest the same to the community.

2. Private Sector Partnerships and Stakeholder Engagement:

This includes regular updates through reports and minutes of meetings to all the stakeholders falling in high importance category.

3. Documentation:

Prepared reports to document strategies, processes, activities, outputs and outcomes associated with the project. Activities also included review reports highlighting the weekly and monthly updates of the project that focused on communication campaigns/community outreach exercises, public sector and stakeholder engagement.

4. Designed Questionnaire for Focus Group Discussions (FGDs) and In-Depth Interviews (IDIs):

The questions were formulated in an open ended format so as to gain maximum information about the ground level situation with respect to climate change,

climate-induced shocks, environment and subsequent impacts on water availability and quality as well as status of sanitation, health, education in these times. The information was provided by school principals, teachers, Aanganwadi workers (AWWs), ASHAs and panchayat officials.

5. Analysis of the FGDs, IDIs:

The information provided by the attendees of FGDs and respondents of IDIs was collected, collated and analyzed. This also gave input to a more structured format of questionnaire that could be administered to the children and women in the community.

6. Designed KAP survey tool:

The Questions were formed, on the basis of information provided to the team during FGDs and IDIs. Two types of questions were formulated. A standard quantitative questionnaire was designed for the women in the community and children falling in the age group of 13-17 years of age. An additional and a more interactive qualitative audio/visual aid tool was included for children falling in the age group of 5-12 years so as to determine authentic and instant information about their knowledge, attitude and practices regarding climate change, its causes and mitigation. This was also done keeping in mind that the younger respondents were not well versed with Hindi language to answer the standard quantitative questionnaire well.

6. **Work done at the Field Level:**

7. Divisional level Sensitization workshop on District Disaster Management Plan:

The workshop was organized and conducted by the State Government of Rajasthan and UNICEF, Rajasthan. The audience comprised of officials from 6 districts from different line departments, important for disaster risk reduction and management. Development Alternatives also attended the workshop in light of its project in

Udaipur district regarding building climate resilience in the community with a focus on children, adolescents and women with UNICEF, Rajasthan. The DA staff sensitized the district officials about the climate change, its impact on water resources and the most vulnerable section of society, that is, women and children. They were also made aware of different modalities that may be useful for water augmentation and different purification techniques. Moreover, they were provided with the success stories of the DA's work in other districts and states through different communication strategies that brought about a positive behavior change in the community.

An increased understanding on the subject of climate change in the district officials was observed. Moreover, its relation with both acute and slow onset disasters, impact on water resources, importance of having a child-centric and women-centric (vulnerable section of the society) approach for the district disaster management plans as well as for building resilience in the communities was a step forward for the officials.

8. Conducted In-Depth Interviews with Panchayat officials, Aanganwadi Workers, ASHAs:

IDIs were conducted with Sarpanch of the Panchayat in two Gram Panchayats (Target Area for the first quarter), school principals and teachers of thirteen schools that fall in the same gram panchayats, Aanganwadi workers of the Aanganwadi centres that are attached to the primary schools in the panchayats and lastly, the Accredited Social Health Activist (ASHAs) of the primary health centres present in the panchayats.

9. Conducted pre-test in one village of control G.P.:

Prior to conducting KAP exercise in the whole target area (two gram panchayats), a control Gram panchayat was selected that was located in the same neighborhood to the target Gram panchayats so as to conduct a pre-test. The validity of the questionnaire was studied from this exercise, redundant questions removed, relevant questions added and existing questions modified from the learnings of this exercise. This was done to make the KAP survey exercise more authentic and rigorous.

10. Conducted two community outreach exercises to establish the organization's presence and initiate discussion on climate change:

It was planned to use the occasion of the local melas as an opportunity to establish the organization's presence in the community. It was also predicted that the exercise may also serve a dual purpose of initiating discussions on climate change and related practices that contribute to mitigating it and its adverse effects, such as, water conservation, hygiene, environment, etc.

It was noted the approach required for the purpose of this exercise needs to be participatory and varied in nature considering that the attendees hail from different demographic sections. Furthermore, the most important factor was deemed to be the desirability/attraction quotient, that is, the activities/human resources' ability to draw and hold the audience's interest and attention for a long time.

As a result, the primary activity chosen from the above shortlisted activities was the Puppetry show in the community's local language (Marwari). The script of the show was designed by the Behaviour Change Communication team of the organization. It was also decided that a 'Pledge' will be drafted for the attendees and will require their signatures. It would provide a quantitative and an instant feedback on the success of the puppetry show, their attitude towards climate change

as well as their willingness to proactively participate in exercises to improve their awareness, attitude and practices regarding the same.

11. Conducted KAP survey amongst children of 13-17 years of age:

A one hour interactive session with the respondents was held a day prior to the KAP exercise so that the respondents are comfortable with the team and the administrators in the two senior secondary schools of the two panchayats. The respondents were yet again divided in two age groups that is, 13-15 years and 15-17 years. The session pertained to their usual or normal habits on water use, sanitation and hygiene and the existing practices in the schools and community related to environment. The next day, a one hour session was conducted with the same group of children for the KAP survey. Herein, the children were yet again divided in groups of 10 for each administrator so that it is easy for the administrator to guide the respondents while answering the questionnaire honestly. The language barrier with the younger respondents seemed greater during the informal interactive sessions conducted with the primary school children alongside the FGD/IDI with the school principals. The purpose of this KAP exercise with the older respondents, that is, those falling in 15-17 years of age so as to train them and enlist them for conducting the KAP survey for the younger children, that is, 5-12 years of age.

12. Conducted Village mapping exercises in all villages of one gram panchayat

In order to find out about each village in detail, village mapping exercises were conducted. Approximately, twelve to fifteen residents would attend the exercise and explain how the village was established and its geographic span along with the areas where the villagers have built their houses, their farms, common sources of water, institutional buildings, etc. It proved very helpful in developing a

relationship with the community as well as understanding the village and its multifaceted problems thoroughly.

7. Learnings:

1. The organization has been noted and observed to have a flat hierarchical system.
One can freely present his/her opinion and contribute in ways that best suit his/her abilities in order to contribute optimally for achieving the organization's goal and vision.
2. Following protocol when liaising with external stakeholders, that is, funding agencies and government is extremely critical to successfully establishing long term cooperative relations.
3. Designing the different tools for KAP survey required detailed attention and review so that it measures exactly what is required to be measured without being burdensome on the children and adolescents.
4. Care also needed to be taken that the cultural sensibilities of the target areas are not touched. Moreover, effort was made to understand their cultural and religious take on the environment. Many local activities have been shortlisted and will be re-designed in a way that contributes in increasing their knowledge, attitudes and practices regarding different aspects of climate change.
5. Liaising with local non-governmental organizations was also important to understand local culture as well as for sourcing different inputs required for the project, such as, infrastructural/ field office space as well as officers for implementing the field work.
6. Drafting reports based on desktop research on existing climate adaptive practices in the community made me aware of the issue at hand about climate change and its effects at the national, state and district level.

7. It is never enough to emphasize the importance of possessing skills of written communication. This is extremely crucial as they form the base on which all activities and updates are officially recorded and serve as evidence of your work. All the telephonic conversations need to be followed with an email or other forms of recordable written communication.
8. Moreover, other forms of evidence such as photographs and video graphs of the field level activities are crucial to be shared with stakeholders.
9. Cooperating and collaborating intra-organization with different domains is also extremely important for the success of the project. Teams are composed of team members, all specialized in specific aspects needed for the success of the project and with their own time commitments. Bringing them together for meetings and decision making as well as sharing mails so that everyone is on the same page is vital to meet the monthly, quarterly deadlines and finish the project within the committed timeline.
10. The most important factor that contributes to the failure or success of the project is the timeline decided for implementation of the project. Considering this is a project concentrating most of its field activities on school going children of government schools, the timelines needs to be adjusted and re-adjusted to give way to their exam periods, vacations, other school level activities as well as community level activities.
11. The community outreach exercise was conducted during a mela organized at the panchayat level post-Holi. It was decided to harness the opportunity of the large crowds that may anyway be collected during the mela. The idea was great however, the planning not so much. Proper approach should have been done through the panchayat samiti and taken due permissions to install a booth in the mela and

- enforce cooperation of fellow booth/stall owners. As it was not done, the other stall owners were hesitant and downright opposed to helping us.
12. The script for the puppetry show was written keeping the local sensibilities in mind. However, the feasibility and time constraints were grossly underestimated by the team. Therefore, the group was not able to implement the activity in the best proper way.
 13. Water testing: learnt in detail about different water testing methods possible at community level as well as about different health problems that the people may suffer from due to different negative properties of the ground water and surface water.
 14. Pre-test and KAP survey: taught the difference in the ability to understand the same concept in different schools of the same block. The necessity of including more interactive audio-visual aids for more authentic response. The possibility of the field officer leading the respondents to the correct answer, hence, contaminating the findings of the survey.
 15. Cooperation of the government officials is of utmost necessity. Permission required by different officers to implement the project from the state level to the ADM, DEO at district level and SDM, BEO at block level as well as school principals of the schools.
 16. The district level officers questioned the necessity of the project as they were unable to understand the connection between climate change and long term change in water quality and availability issues. They had, till then, only associated the climate change with rude and acute shocks such as floods and hail storms.

8. Conclusion:

Working in the field for the past two months have been extremely challenging, but, rewarding at the same time. It has been a pleasure going to small villages with 40-60 households and getting in touch with the situation at ground level, both, in villages as well as schools. The various activities conducted on the field has brought in a new perspective in my thinking at the policy level in the public health aspect. I am sure I will be able to contribute immensely to this project as a public health expert and gain a lot in terms of experience and knowledge from my colleagues and seniors in the organization as well as the community.

Annexure

1. KAP survey exercises with children and adolescents



2. Community Outreach Exercise (Puppetry Show)

