# Global FOREWARN Community Meeting Minutes

### Date: Tuesday 25th May 2021

### Time: 10.00-12.00 UK Time

## Actions

1) We have a new mailing list! Are your details up to date? Please contact *FOREWARN@startprogrammes.org* to add yourself or a colleague to the mailing list

2) We strongly encourage collaborators in future meetings, and will be coordinating these around themes- please add you thematic suggestions, and nominate a speaker here

3) If you have any updates to share, please email *FOREWARN@startprogrammes.org* and we will add them to our open source marketplace folder here

4) After real time voting during the meeting the group voted for 'Flooding' to be the focus of the next Global FOREWARN meeting. Please get in touch if you have content to share.

5) Do you have a hazard specific expertise? Do you have an analysis expertise? Join our thematic sub groups and support anticipatory decision making, contact  *FOREWARN@startprogrammes.org*

## Summary & Discussion Leads

**May 2021 Global FOREWARN community meeting: Agenda** here

- **Welcome;** Megan Lilley; Crisis Anticipation and Risk Financing Partnerships Advisor Megan.Lilley@startprogrammes.org

- **Opening Remarks**; Dr. Rana Jawad Asghar: Chief Executive officer of GHSI (Global Health Strategists and Implementers jawad@alumni.washington.edu

- **Anticipating epidemics through the Start Fund;** Christine Murphy, Crisis Anticipation and Risk Financing MEAL Advisor, Start Network Christine.Murphy@startprogrammes.org

- **Reflections from the ground:** anticipating Covid 19 in Sierra Leone - Sarah Cundy Sarah.Cundy@concern.net  and Timor Leste - Alison Darcy alison.darcy@careint.org

- **FOREWARN Bangladesh:** towards a dengue early action protocol, Ashraf Haque- Start Network FOREWARN Coordinator Ashraful.Haque@startnetwork.org & Bangladesh, Md. Yeakub Hossain, Head of Climate Action and Humanitarian Response, Social and Economic Enhancement Programme-SEEP, Bangladesh

- **FOREWARN Philippines:** Dengue outbreak anticipation tool with University of Philippines Risk Institute, Dr May Grace mbdacuma@up.edu.ph and Jomar F. Rabajante jfrabajante@up.edu.ph, University of the Philippines Los Baños and UP Resilience Institute

- **Risk Informed Early Action Partnership (REAP) Health working group update:** Emma Flaherty: Thematic Lead, Implementation the Risk-informed Early Action Partnership (REAP) Emma.FLAHERTY@ifrc.org

- **Using risk models and forecasts to inform UNICEF's cholera response in Yemen,** and the Global Task Force on Cholera Control, Helen Ticehurst: Project Manager, EACH project, UK Met Office helen.ticehurst@metoffice.gov.uk

- **Meningitis outbreak forecasts over the African meningitis belt;** Dr Cheikh DIONE Research scientist, African Centre for Meteorological Applications for Development (ACMAD) cheikh.dione@acmad.org

- **Acting before unusually high seasonal transmission of malaria;** Zamfara, Nigeria, Jonglei South Sudan and Chhattisgarh, India, Léo Tremblay, Project Manager, Médecins sans Frontières Leo.Tremblay@london.msf.org

## Meeting minutes:

### Welcome: Megan Lilley, Crisis Anticipation and Risk Financing Partnerships Adviser

Opening remarks by Megan Lilly, recap of the agenda here. Recap on what the FOREWARN global community is and how this community support members to raise Start Fund alerts. Introductions to the FOREWARN team.

**Announcement:** Megan Lilley Forewarn Partnerships Advisor is moving to a Forecast based Finance role with the Finnish Red Cross. This Start Network role is currently advertised, for more information please see the Start Network job advertisement; LINK and note; job location is flexible, Start Network particularly welcome BIPOC applicants as well as applicants from the global south. Kindly note that the role will require working with Start Network team on BST time zones. Salary will be benchmarked to equivalent roles in national context.

### FOREWARN Team Updates and News from Q1 cyclone thematic meeting – Marwa Tasmin, FOREWARN Partnerships Officer Bangladesh and Seheno Andrianiaina- Start Network FOREWARN Coordinator, Madagascar

Updates from FOREWARN countries;

- **Bangladesh** - drafted Early Action protocols for three hazards; Landslide, Riverbank Erosion and Dengue Fever. Have started forming expert groups for each hazard. Actively monitoring Cyclone Yash and landslide and river bank erosion during seasonal rains.
- **Philippines** - actively monitored tropical cyclones and population displacement. Expansion of FOREWARN expert groups including university consortia. Joint flood early action protocol simulation exercise held with FbF partners. Network mapping operational presence for future cyclone early action.
- **Pakistan** - active technical working groups for flood, heatwave and drought. Flood season and monitoring with model from June 1st. Forming national steering committee to advise all technical working groups. Expanding geographical area for existing heatwave model.
- **Madagascar** - FbF for drought model has triggered in northern region. Active Start Fund alert for drought and food in-security in South. Cyclone anticipation work continues. Start Fund committee has approved trialling the released of Start Funds in 6-hour window, meaning that the SF process can be sped up resulting in earlier mobilisation of agencies on the ground. Also work ongoing to standardise the cyclone risk model shared in last meeting so it can be adapted to other countries/regions.

### Opening remarks – why anticipate epidemics? . Dr. Rana Jawad Asghar: Chief Executive officer of GHSI (Global Health Strategists and Implementers.

Background
It takes 22 days on average global to identify the start of an outbreak. In identifying early you can prevent the outbreak of an epidemic as we have all learnt over the last year with Covid.

Key things to alerting of an epidemic and the role of communities
- Manage uncertainties and unknowns.
- Anyone can potentially alert of unusual events.
- Take a multisectoral approach.
- Engage and empower local communities in all aspects of preparedness and response.
- Human activity is the main driver of the current COVID emergency and amplification of new pathogens.

Issues with current global security:
- Infectious diseases do not respect international borders and this is heightened by the speed at which people travel in today's world.

What can we do:
Detect (quickly) - Respond (immediately) - Contain (locally)
Investment in communities is required to ensure adequate public health systems are in place.

Summary ( Key takeaways)
- We are all homo sapiens. We are all critical players in the survival of our species.
- Viruses will adopt new techniques to avoid detection by vaccines, and it is key that we all remember to work together and act early against epidemics.

# Anticipating epidemics through the Start Fund: A review of Start Fund responses to Covid 19, dengue and cholera, Christine Murphy, Crisis Anticipation and Risk Financing MEAL Advisor, Start Network

Disease - management or mitigation? By looking at previous Cholera start fund alerts you can see there are often blurred lines between the time agencies have acted and the responses taken.

Summary - 25 alerts with Cholera as the primary crisis. 20 have been activated of those 2 have been anticipatory alerts. Explanation on reach and cases - the numbers vary and indicates that anticipation and response blur. Project spend indicates that a large amount of spend by agencies has been allocated to prevention in comparison to response actions.

So what activities did agencies carry out - clear that members place high value on preventative activities. However analysis from SF case load indicates that by and large members adopt a mixed method methodology in responding to outbreaks,

**Response and Prevention**

**Prevention included:**
- Hygiene awareness
- WASH kit distribution (soap, aquatabs)
- Waterpoint/washpoint rehabilitation
- Establishing chlorination points
- Water provision
- Sensitization
- Communication material
- Dissemination of Seasonal Forecasts and implications
- Knowledge transfer
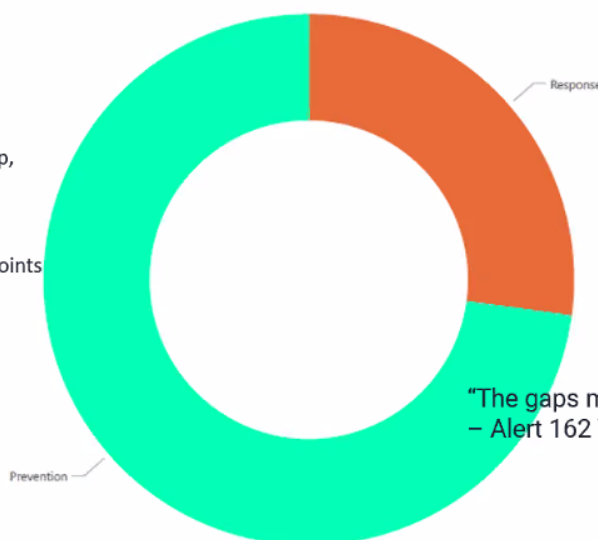
**Response included:**
- Case surveillance and tracking
- Transport of patients
- Provision of supplies to CTCs
- Training of CHWs
- Support vaccination campaigns

● Response
● Prevention

"The gaps mainly lie in the preventative aspects" – Alert 162 Yemen

"Limited prevention activities are ongoing now – this is the major gap" – Alert 225 Nigeria

Anticipating secondary impacts requires contextual information - example of this can be seen in alert 144 Malawi flooding. Start Network members were able to raise a successful alert anticipating the outbreak of Cholera, utilizing knowledge within the community and making the most of early intervention.

Start Fund Covid-19 also used mixed methodology approach. Activities by agencies were a mix of response and anticipation.

## Reflections from the ground: anticipating Covid 19 in Sierra Leone and Timor Leste,

Experience sharing from Sarah Cundy, Concern, Sierra Leone
Key takeaways from anticipation of COVID-19;
- Uncertain of key parameters of COVID as a new disease, and so hard to raise anticipation alert.
- Focused on knowledge sharing to reduce the risk to people
- Response focused key geographical areas. Based response on community prevention given the unknowns and uncertainty. Focused on key messages on social distancing and key things to keep key health infrastructure protected. Adopted learning from Ebola outbreak.

Experience sharing from Alison Darcy, Care International, Timor Leste:
- Consortium approach - coordinated together where they anticipated key geographic areas - targeted 3 border areas near Indonesia which already had a high number of cases
- Project focussed on WASH and raising awareness on hygiene and social distancing
- Focus on preventing the spread of misinformation.
- Quick Start Fund funding enabled NGOs to be part of the local government task force.
- Key challenges: no cases of COVID confirmed, meant that it was difficult to engage rural populations who did not see COVID as a major risk.
- It was important to get information out there early, especially with many uncertainties and no needs assessment or government data.

## FOREWARN Bangladesh: towards a dengue early action protocol, Ashraf Haque- Start Network FOREWARN Coordinator, Bangladesh, Md. Yeakub Hossain, Head of Climate Action and Humanitarian Response, Social and Economic Enhancement Programme-SEEP, Bangladesh

Updates on the Dengue Anticipatory Action work in Bangladesh;

Selected key locations in the south and north of the country.  Lead time 45 days.  Triggers followed rainfall exceeding average rainfall from 2000-2018 or an exponential rise in dengue patients.  Have then developed the following readiness actions and early actions during peak dengue fever times;
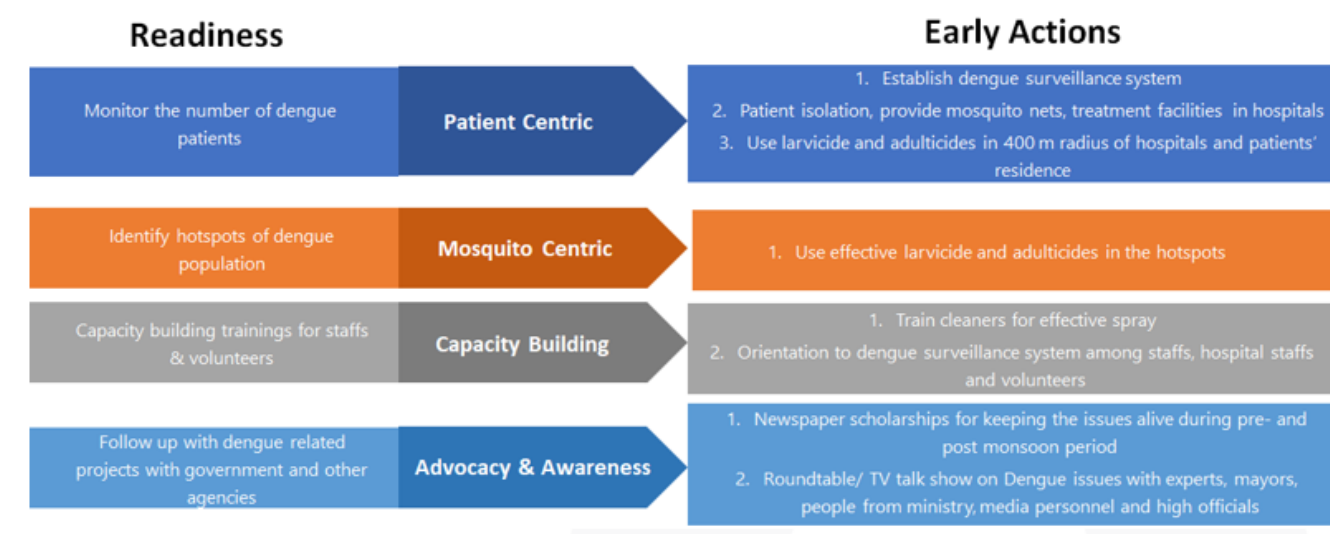


Experiences from SEEP - Yakub Hossein: key learnings - prevention very effective and coordination as well as using social media to spread information.  FOREWARN supported the design of the project.  Challenges: hospitals unwilling to take dengue patients due to increased COVID cases.

The Learning Document developed by the SEEP team can be found here.

## FOREWARN Philippines: Dengue outbreak anticipation tool with University of Philippines Risk Institute, Dr May Grace and Jomar F. Rabajante, University of the Philippines Los Baños and UP Resilience Institute

- Dengue is present year round in The Philippines peak is June to November.
- In 2019 there was an epidemic - 400,000 cases and more than 1,000 deaths.  All serotypes of dengue circulate in the Philippines. Most cases in 2019 were in people under 20 years of age.
- Mosquitos breed in open water containers - and so breeding sites and cases rise during rainy season.
- Due to the potential for a dengue epidemic a tool was developed to predict dengue outbreaks - this can support Government and other organisations to act.
- Philippine Department of Health has a dengue mitigation plan in place - and has a database to monitor daily dengue outbreaks.
- Several studies were considered in development of the tool - in Vietnam, Colombia and Thailand - different weather forecasts have been used to show a correlation between rainfall, humidity and other weather factors that affect dengue outbreaks.
- Development of the tool took into account all previous dengue analysis globally and in the Philippines.

- The model maps early warnings by monitoring dengue cases with weather forecasts.
- Dengue Risk Analysis Tool is now on the World Vision website: http://dengueriskanalysis.worldvision.org.ph/ it uses a mathematical algorithm which determines the optimal control of dengue outbreaks.  By considering many factors including active cases, weather, vaccinations and any other factors that may contribute to an epidemic.

Red Cross 510 - Dengue risk analysis reflections:  Approach followed by 510 conceptually similar triangulating various data sources to trigger for dengue Early Actions.  Discussed future collaborations on using this approach in other areas.

## Risk Informed Early Action Partnership (REAP) Health working group update: COP 26 Health Campaigns including the Adaptation Research Alliance, Emma Flaherty: Thematic Lead, Implementation the Risk-informed Early Action Partnership (REAP) Secretariat

What's happening in REAP:
- REAP has an active Health Working group -  and are co-convening The Global Task Force on Cholera Control.
- Working with FCDO on key health campaigns for COP26 including; Climate Resilient Health Systems https://www.who.int/news-room/events/detail/2021/05/06/default-calendar/adaptation-action-coalition-health-launch  and the Adaptation Research Alliance https://southsouthnorth.org/portfolio_page/adaptation-research-alliance/
- Seeking to strengthen coordination and build awareness and collaboration among extreme heat actors. REAP will be organising a networking event to discuss further.

## Using risk models and forecasts to inform UNICEF's cholera response in Yemen and the Global Task Force on Cholera Control, Helen Ticehurst: Project Manager, EACH project, UK Met Office

In Yemen there are high poverty rates in a country already extremely vulnerable to cholera outbreaks . UNICEF worked with Met office to provide weather updates. Below is the weekly email update that are provided to UNICEF to highlight the risk of a cholera outbreak:
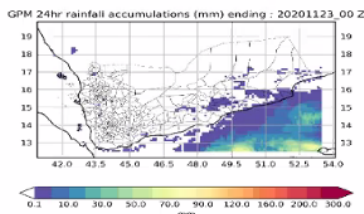


**CRM Output**

Yemen May 6-June 7 Cholera Risk County Average
Value
High
Low
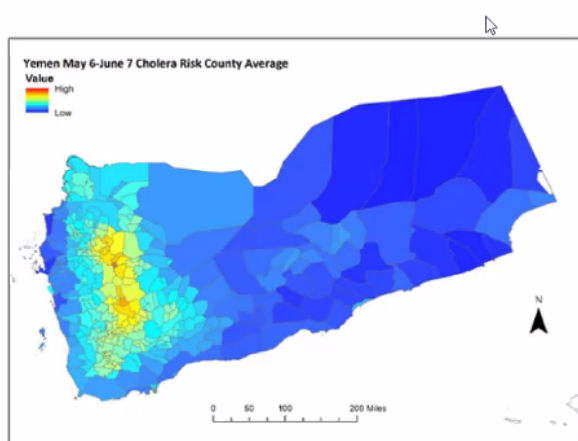
- The CRM provides an indication of cholera risk which is valid for 4 weeks (from issue date).
- Based upon rainfall and temperature data, information on population density and movement and, (where available) WASH data, the model's algorithm then calculates a risk score for cholera.
- This is presented in a series of maps along with a brief description on how to interpret the risk values.

How it works- there is no national weather service in Yemen and so the UK Met Office were asked to support.



## Rainfall forecasts

- The Met Office provides rainfall information to users in Yemen on a weekly basis.
- This includes a 7-day hindcast, a 7-day forecast, a 4-week forward outlook, and a summary highlighting high-impact weather.
- It also includes maps showing the spatial distribution of rainfall and tables giving forecast rainfall, by category, for specific locations around the country.
- Met Office providing this data as no functioning Met Service in Yemen.

Example of accumulated rainfalls

Example of rainfall forecast shown by district

Outcomes of the project:
- Reduction in cholera cases - 63%
- Unicef attributed this to intervention taken and were able to show the project contributed to this in using timely information to implement targeted interventions
- Model was validated and data showed that a cholera epidemic was possible.



Getting ahead of the curve: using cholera risk information to act earlier
(in contexts where cholera prevention activity is already underway)
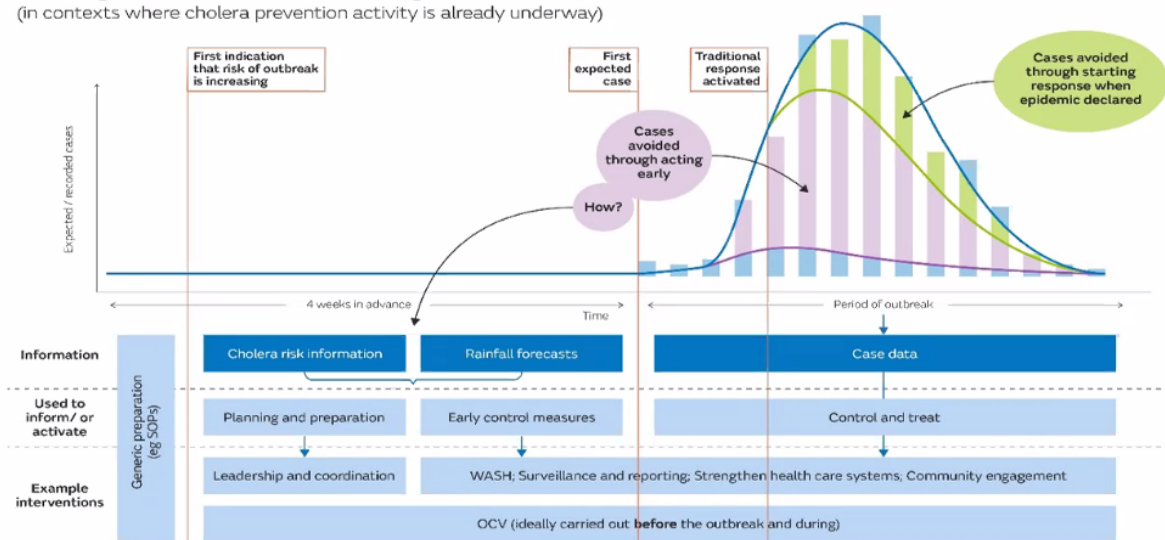
Recommendations:

- Number of cases can be averted by acting earlier. Often takes 22 days to identify a potential cholera epidemic - so model and earlier risk information offers an opportunity to get ahead of the 22 days.
- No regrets activities are implemented including; wash surveillance and strengthening of health care services.
- Need for further pilots in other contexts and explore the use of risk information like this in other contexts. OCHA are now piloting how risk information can be used in other contexts and aligning with The Global Taskforce on Cholera Control - who have targets to end cholera worldwide.

Next steps:
- OCHA Pilot with REAP
- Engage with other actors in this area


## Meningitis outbreak forecasts over the African meningitis belt, Dr Cheikh DIONE Research scientist, African Centre for Meteorological Applications for the Development (ACMAD)

Project aims:



**GCRF African SWIFT**

**Project Aims**

- **Significant** improvements in weather forecasts in Africa, **and the tropics, from hourly to seasonal timescales.**

- **Build capability among UK and African partners to** improve, maintain and evaluate **operational tropical forecasts in future.**

- **Develop African capacity for** sustained training of forecasters.

**How it works?**

Co-production on meningitis
- Between ACMAD and WHO AFRO to support WHO's programme on meningitis eradication.
- Weekly early warning bulletins generated and shared with WHO AFRO to health services in each country - bulletins compile multiple weather forecasting sources in the two following weeks to predict where meningitis outbreaks may occur on interactive maps - see below;

Week 1
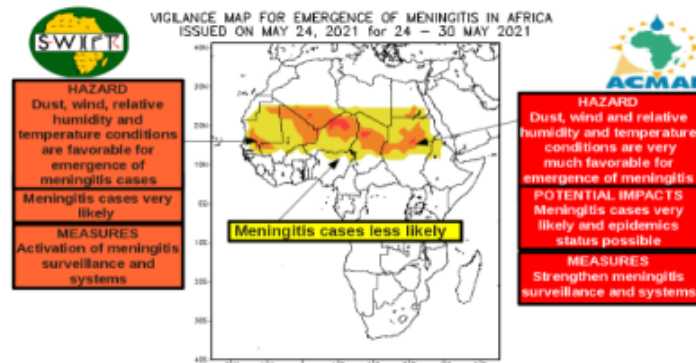


Week 2
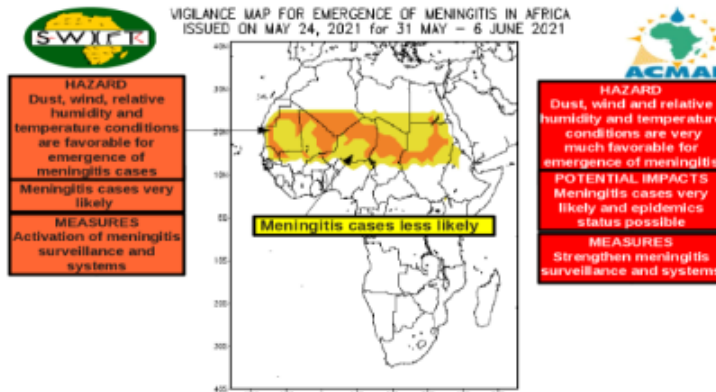


- Countries alerted to prepare for meningitis outbreaks and scale up immunisation programmes.

**Successes;** Forecast evaluation shows good performance of forecasts, capacity has been built amongst climate scientists and health teams, this co-production has led to lives being saved.

**Challenges;** Large resolution of forecast data, red vigilance areas may raise warnings for un-inhabited or inaccessible areas.

## Acting before unusually high seasonal transmission of malaria in Zamfara, Nigeria, Jonglei South Sudan and Chhattisgarh, India, Léo Tremblay, Project Manager, Médecins sans Frontières

Project currently entering implementation stage - so no learning to share at this stage.
Project trying to address; unusually high seasonal transmission/malaria season at unexpected time of the year, which may lead to higher morbidity and health teams being unprepared.  All of which mean lives are lost.  This can be avoided by anticipating in advance.

Project is happening in South Sudan, Nigeria and India.
-    Regions where malaria is endemic
-    Good epidemiological records, at least 5 years
-    Support from ministry of health.
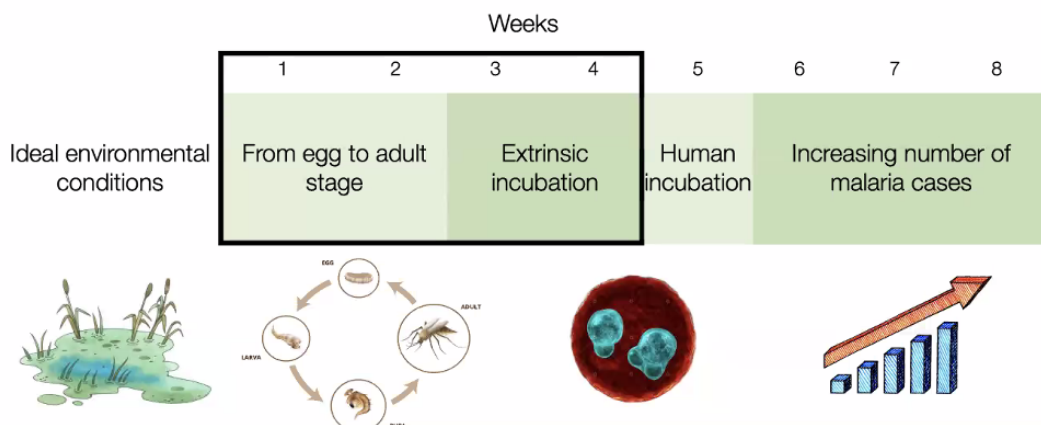
Incubation lasts 2 weeks.
- Project should identify the ideal environmental conditions for mosquito growth from rainfall, temperature and humidity data
- Once these environmental conditions are present MSF Malaria Early Actions toolkit proposes activities including; indoor residual spraying, distribution of mosquito nets, seasonal malaria chemoprevention (SMC) and larviciding.

The project will take place from May to December 2021.  Weather stations have been installed to provide real time weather data.

Optimism for success - as a lot of evidence that points to a strong connection between environment and malaria combined with existing experience with the proposed mitigation strategies.

## AOB:

Next steps the poll indicated Flooding is the most popular thematic focus for the Q3 Global FOREWARN meeting.  Anyone from the FOREWARN community interested in sharing their work please email; *FOREWARN@startprogrammes.org*