



PROFESSIONAL GROUNDWATER DEVELOPMENT MEANS MORE THAN BUILDING INFRASTRUCTURE

ILLUSTRATED BY A FILM AND FOUR SHORT STORIES

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<https://tinyurl.com/waterdrilling>



INTRODUCTION

WHY ARE SOME BOREHOLE BETTER THAN OTHERS?

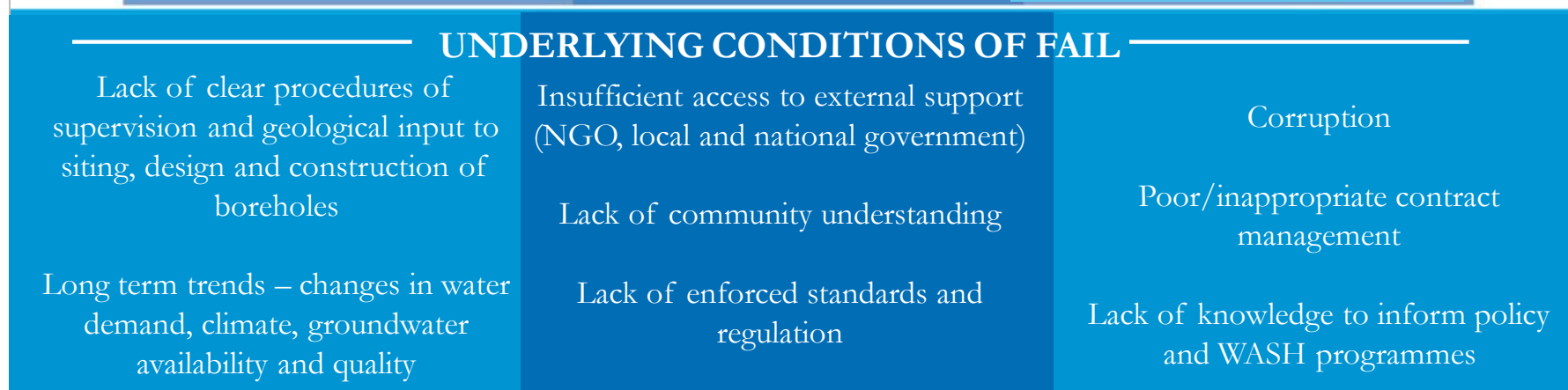
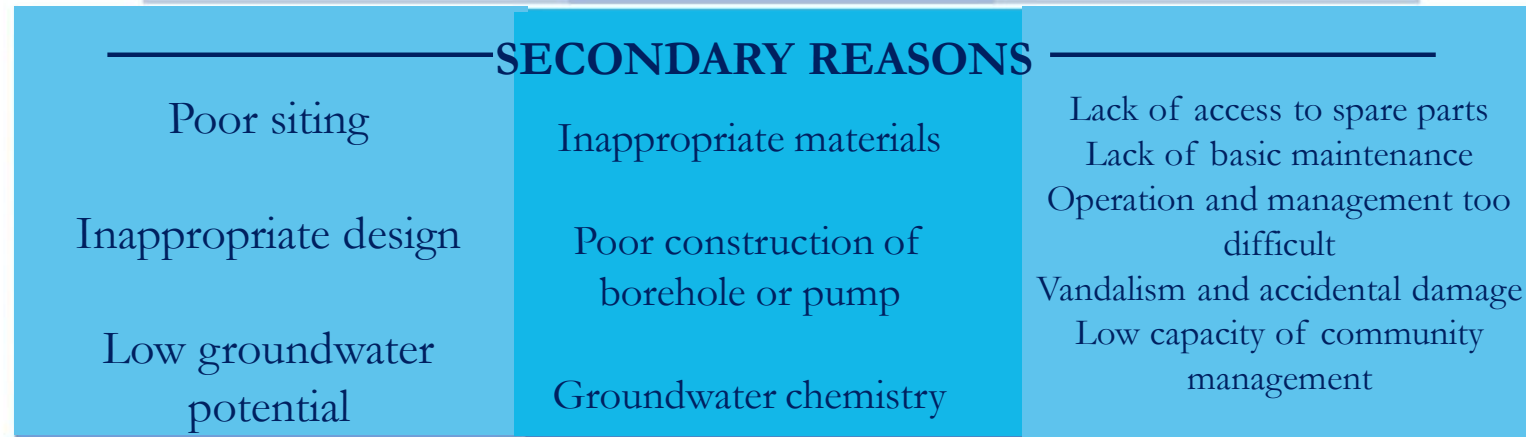
Featuring Henry the handpump mechanic, Harriet the hydrogeologist and
Dan the driller



Why are some boreholes better than others?

A short animated film

<https://vimeo.com/185289895>



Underlying causes of failure (and success)

SOURCE:
BONSOR ET AL (2015)



CHAPTER 1

NO WATER NO PAY CONTRACTS: HIDING THE COSTS OF DRY BOREHOLES

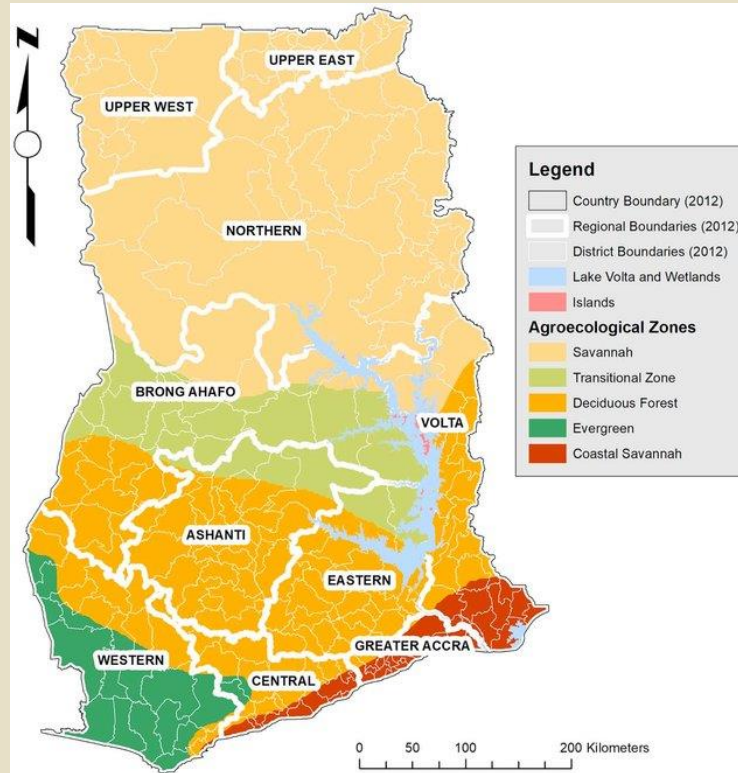
..but what is really being hidden?

*Driller cools off in
Ogun State (Source: Kerstin Danert)*



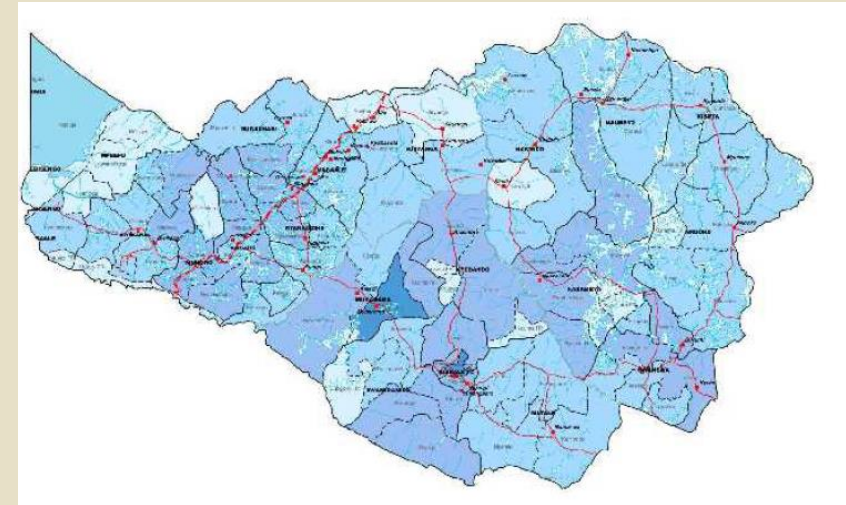
**Who pays for the labour
of the drillers that worked
on the failed borehole?**

*Agro-ecological zones of Ghana
(Abbam, 2018)*



**How can we support rural
populations in difficult-to-
drill hydrogeological zones?**

*Groundwater Maps of Kibaale,
Uganda (MWE, 2011)*



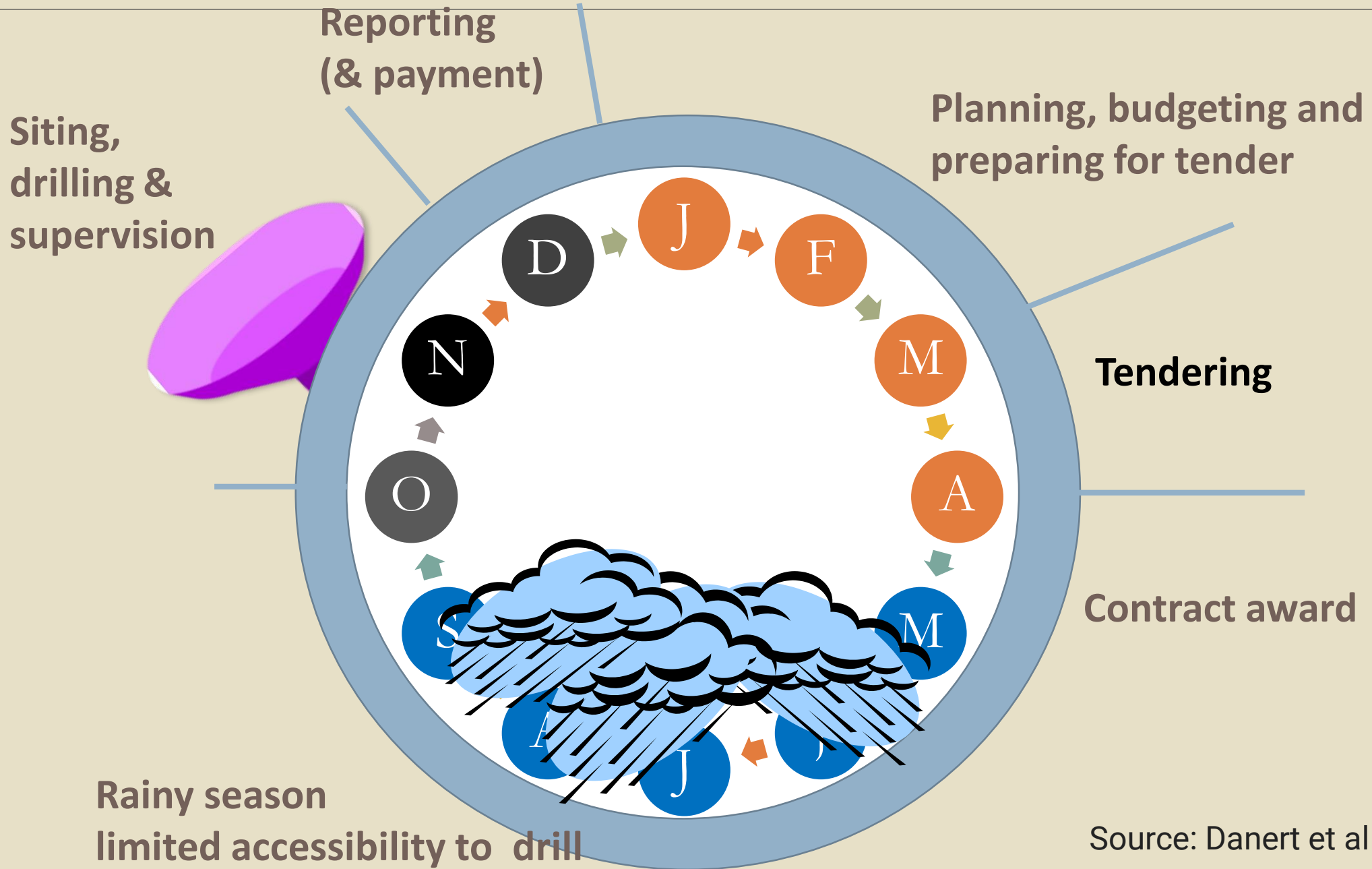
**How will valuable
groundwater data ever be
collected?**



CHAPTER 2

THE CURSE OF THE VERY SHORT DRILLING SEASON

A true story from Burkina Faso, but repeated in other lands



Source: Danert et al (2019)

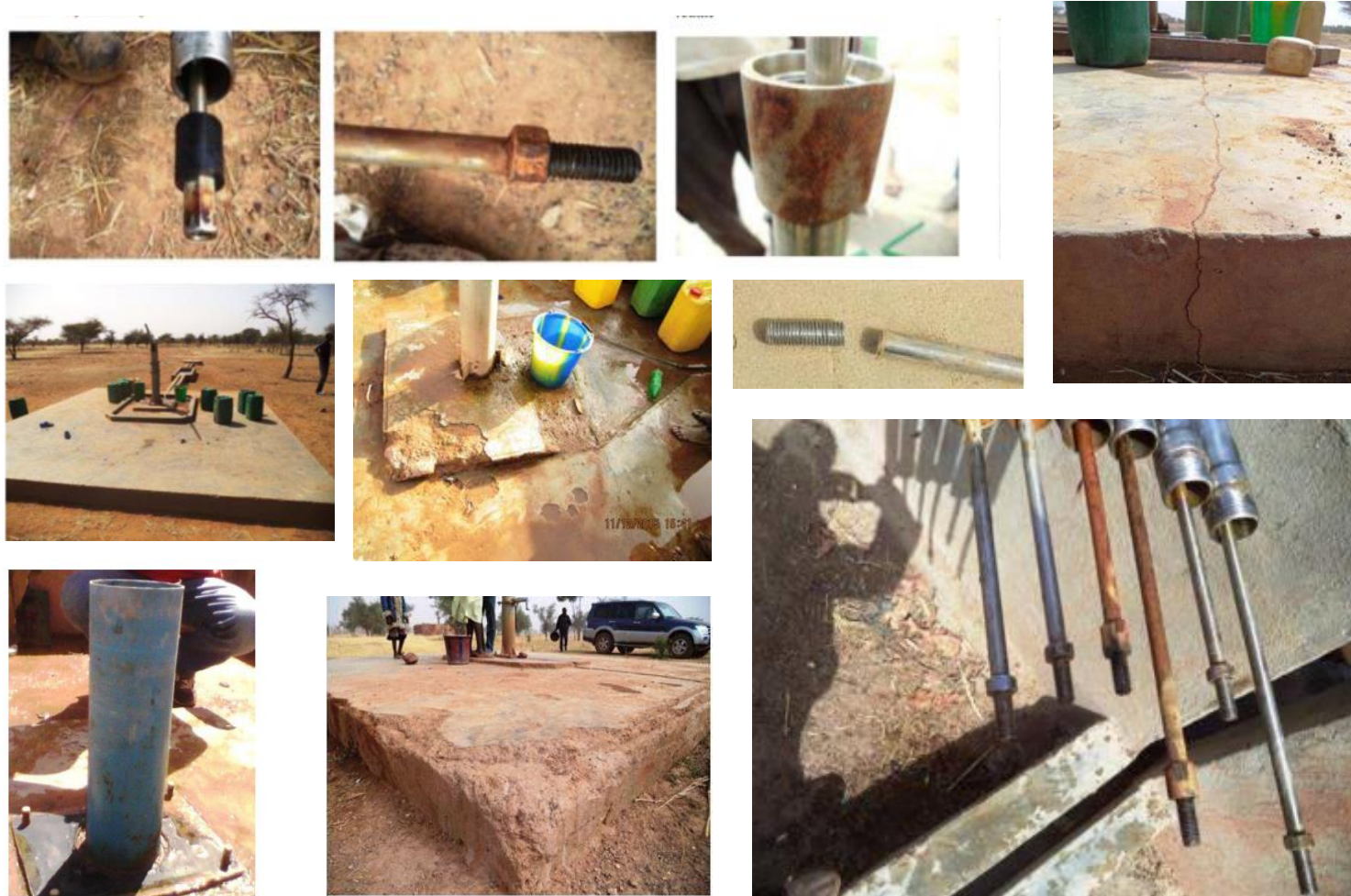


CHAPTER 3

A FREE MARKET FOR HANDPUMPS

But what is being installed?

Examples of poor quality handpumps and platforms



Source: Danert et al (2019)

Client gives full responsibility for borehole & handpump to drilling contractor.

Driller buys the pump.

Handpump component and material quality is not assured.

Supervision & quality assurance is weak.

The result: services are built that simply cannot last.



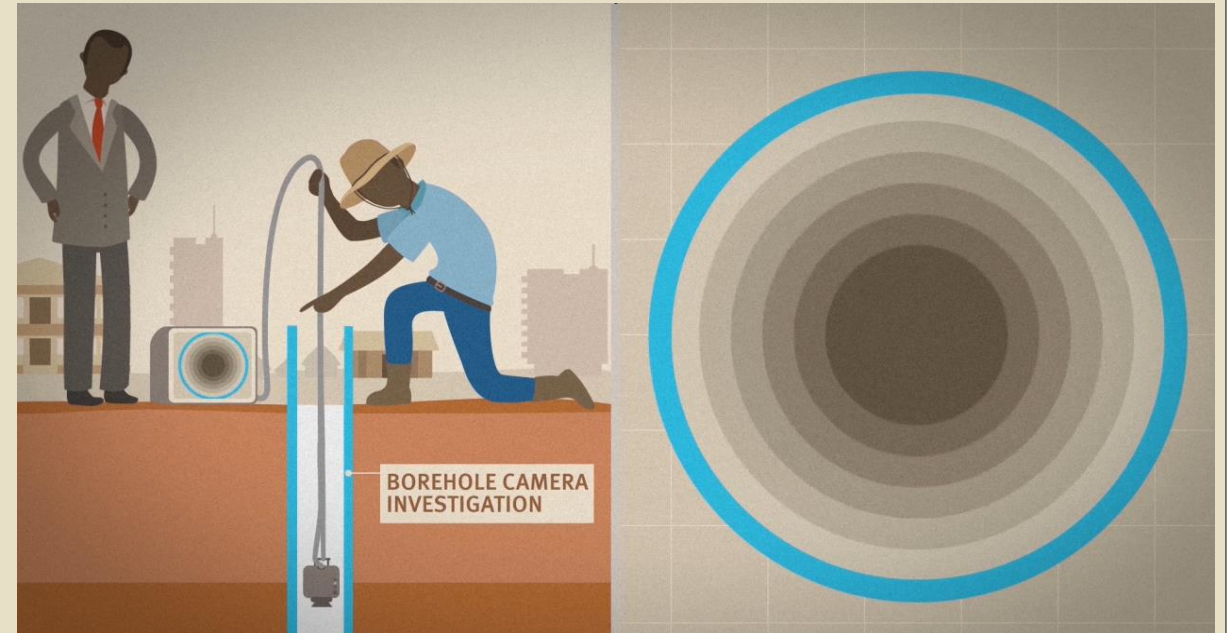
CHAPTER 4

“GRAVEL PACK! I USED TO THINK THAT IT
WAS A GERMAN WORD”

Why training matters?



**Practical Drilling Supervision Training,
Sierra Leone, 2014**



**Knowing what a borehole camera is and
what it can do.**



EPILOGUE

WHAT CAN YOU DO?

JOIN UNICEF, WATERAID, SKAT FOUNDATION AND OTHERS TO
STRIVE FOR PROFESSIONAL WATER WELL DRILLING
AND A SUPPORTIVE ENABLING ENVIRONMENT

Professional Water Well Drilling

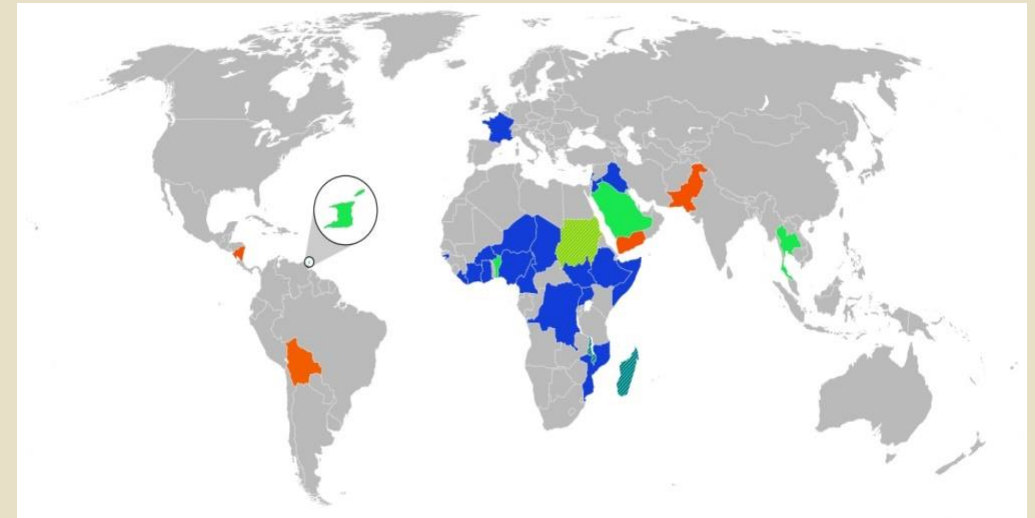
A UNICEF Guidance Note



Taking action

<https://tinyurl.com/waterdrilling>

Figure (below) Location and type of organisation of successful participants of 2018 Online Course on Professional Drilling Management (Danert, and Theis (2018))



Strengthening Capacity and Raising Awareness

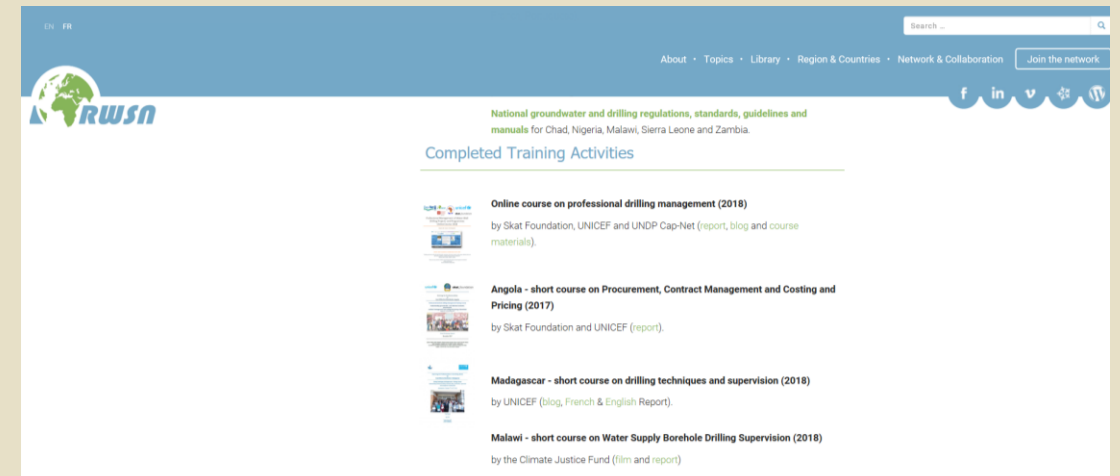
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More information

<https://tinyurl.com/waterdrilling>

<https://www.rural-water-supply.net/en/sustainable-groundwater-management/professionnal-water-well-drilling>



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