

# Etablierung einer lokalen Wettervorhersage in Bugesera

Helen Rombach, Christine Jalhoum,  
Reham Fakash und Viktoria Aberle

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Die Entwicklung eines potentiellen  
Forschungsprojektes in Ruanda

16.12.2020

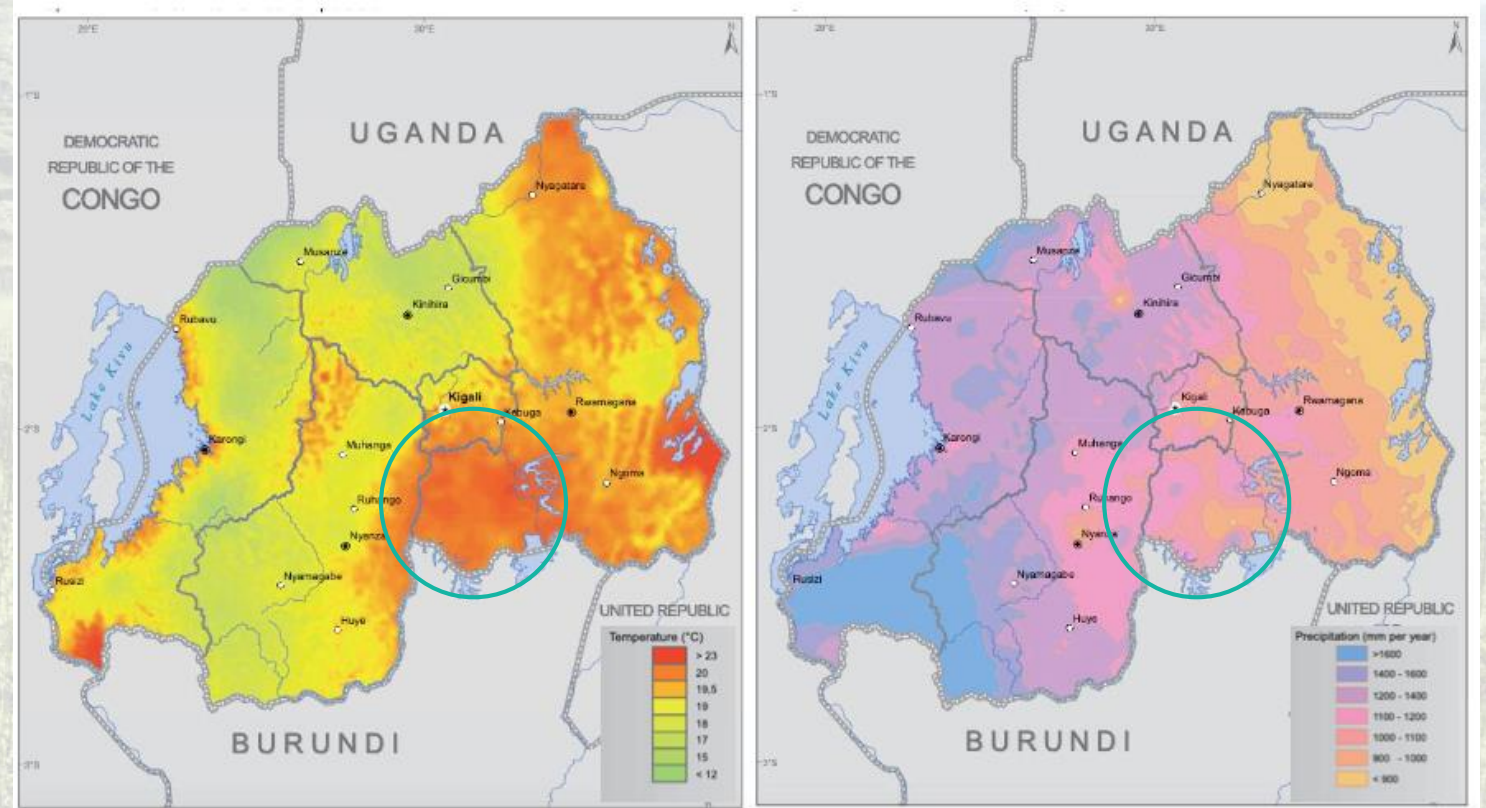
Viktoria Aberle, B. Sc.; Studentin Landwirtschaft und Umwelt M. Sc.



# Problemanalyse

1

Klimawandel



UNEP, 2011

# Problemanalyse

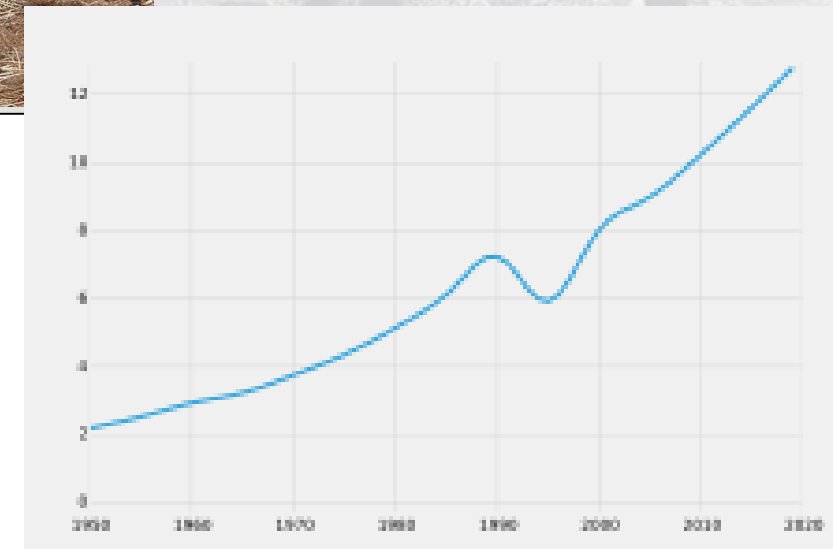
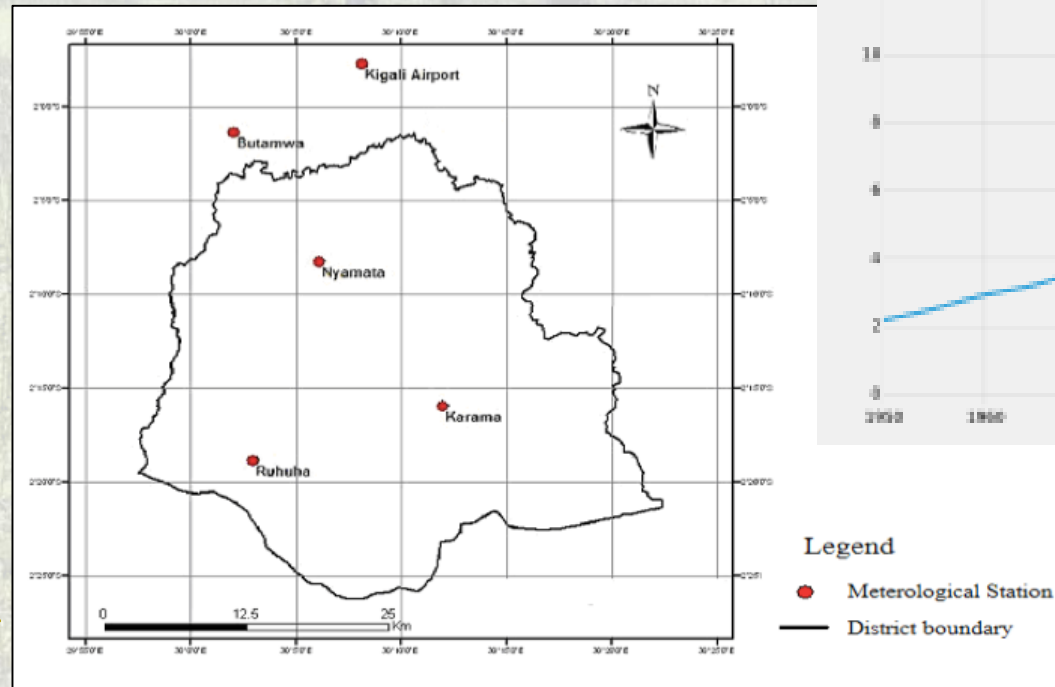
2

Soziale, infrastrukturelle  
und ökonomische  
Faktoren



Deutsche Welle, 2012

United Nations, 2019

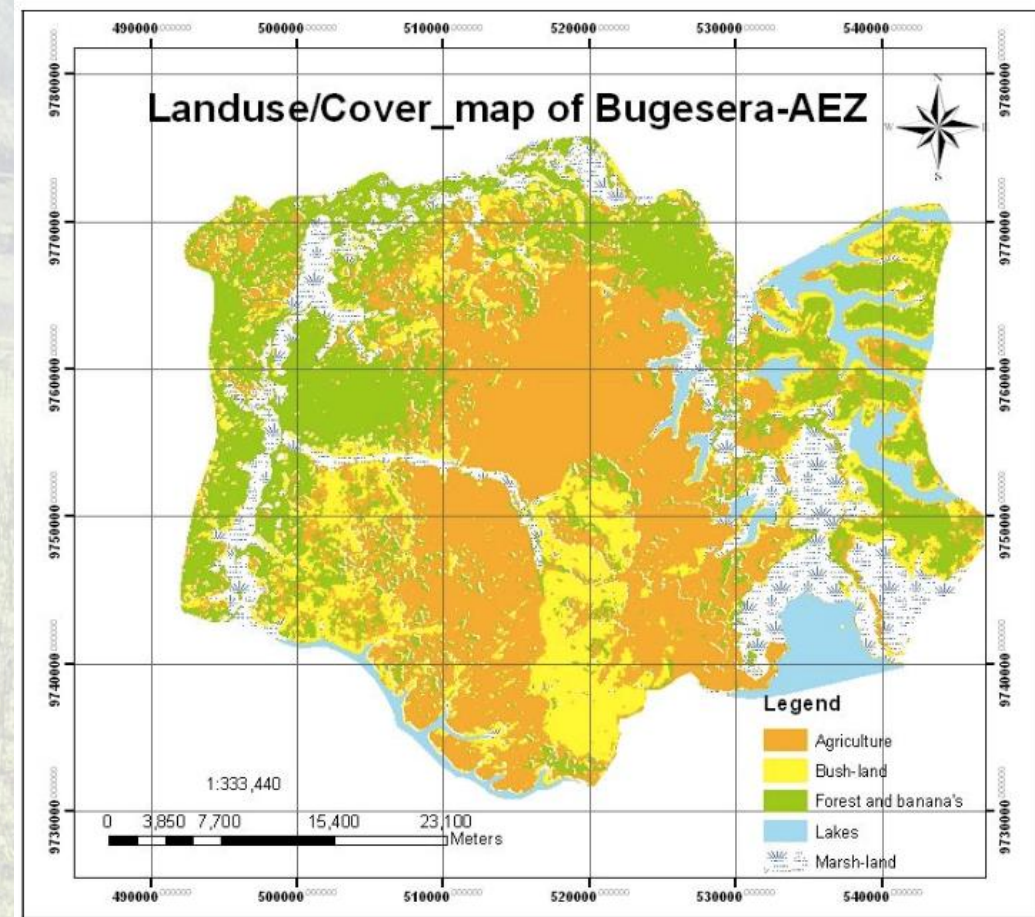


Benimana et al., 2015

# Problemanalyse

3

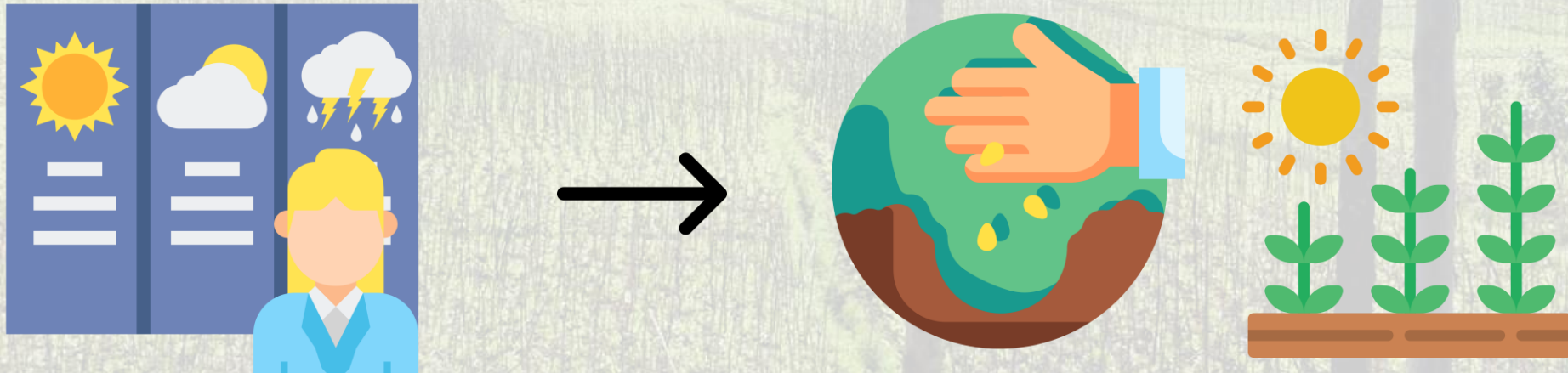
Agrarsektor



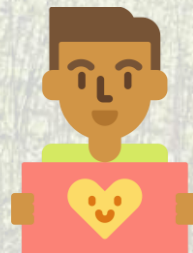
Mikwa et al., 2014

# Projektziel

Bereitstellung von lokalen Wettervorhersagen für Kleinbauern zur Verbesserung der Anpassung an den Klimawandel in Ruanda



# Methodik



A 3 Farmer questionnaire (R. Fakash, H. Rombach)

Farmer questionnaire			
Name:	Age:	Gender	<input type="checkbox"/> f <input type="checkbox"/> m
Location:			
1. Living situation			
1.1. What kind of education did you have?			
<input type="checkbox"/> none	<input type="checkbox"/> school	<input type="checkbox"/> Higher Education	
	Level:	Level:	
1.2. Are you married?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
1.3. how many members are in the household?			
1.4. Do you have children?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
1.4.1. How many?			
1.5. Do your children go to school?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
1.6. Do you have electricity in your house?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
1.7. Does your income depend entirely on agriculture?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
		What other sources of income do you have?	
1.8. Did you attend any courses provided by the government (educational, social health related)?		<input type="checkbox"/> Yes <input type="checkbox"/> No	
2. Agricultural production			
2.1. How many fields do you have?			
2.2. How big is your farm?		<input type="checkbox"/> Small <input type="checkbox"/> Medium <input type="checkbox"/> Big	
2.3. Who gave you the land?			
2.4. Do you raise livestock in your farm, what kind? How many?			

Which information is regularly available for the communities in terms of climate change?

What kind of climate parameters do you collect?

- |   |   |
|---|---|
| <input type="checkbox"/> Daily average temperature                  | <input type="checkbox"/> Relative/ absolute Humidity  |
| <input type="checkbox"/> Maximum daily temperature                  | <input type="checkbox"/> Humid/ Arid days             |
| <input type="checkbox"/> Minimum daily temperature                  | <input type="checkbox"/> Ground frost                 |
| <input type="checkbox"/> Daily Precipitation                        | <input type="checkbox"/> Summer days (more than 25°C) |
| <input type="checkbox"/> Heavy precipitation 10-20mm/ 24 hrs.       | <input type="checkbox"/> Hot days (more than 30°C)    |
| <input type="checkbox"/> Heavy precipitation 20-30 mm/ 24 hrs.      | <input type="checkbox"/> Air pressure                 |
| <input type="checkbox"/> Heavy precipitation 30 mm or more/ 24 hrs. | <input type="checkbox"/> Sunshine duration            |

Other :

Geographers and Environmental scientists:

Where do you see the greatest need for adaptation in agriculture to be prepared for climate change?

On a scale of 1-6 (1 is very good, 6 is very bad), how do you rate the following situations?

- Communication between the state and farmers (concerning agricultural challenges)
 

1 o (very good)	2 o (good)	3 o (rather good)	4 o (rather bad)	5 o (bad)	6 o (very bad)
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- State support for farmers and small farmers
 

1 o (very good)	2 o (good)	3 o (rather good)	4 o (rather bad)	5 o (bad)	6 o (very bad)
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- Good quality communication of climate change issues in the public media?
 

1 o (very good)	2 o (good)	3 o (rather good)	4 o (rather bad)	5 o (bad)	6 o (very bad)
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- How strong is climate change becoming an issue in the scientific community in Rwanda?
 

1 o (very strong)	2 o (strong)	3 o (rather strong)	4 o (rather weak)	5 o (weak)	6 o (very weak)
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Politicians (e.g. the minister of agriculture):

Is the issue of climate change anchored in primary/secondary school curricula?

Yes ☐

No ☐

Ikibazo cyababwira			
Amazina:	Imyaka:	Igitsina	<input type="checkbox"/> (gore) <input type="checkbox"/> (gabo)
Aho biherereye:			
4. uburyo bw' imibereho			
4.1. Nayahe mashuri mwize?			
<input type="checkbox"/> ntayo	<input type="checkbox"/> amashuri	<input type="checkbox"/> secondaire cg kaminuza	
Urwego:		Urwego:	
4.2. Mwarasezeranye?		<input type="checkbox"/> yego <input type="checkbox"/> oya	
4.3. Mubana nabantu bangahe?			
4.4. Mufite abana?		<input type="checkbox"/> yego <input type="checkbox"/> oya	
4.4.1. Bangahe?			
4.5. Abana bawe bariga?		<input type="checkbox"/> yego <input type="checkbox"/> oya	
4.6. Mufite umuriro murugo?		<input type="checkbox"/> yego <input type="checkbox"/> oya	
4.7. Amafaranga mwinjiza yaba ashingiyeye kubuhinzi?		<input type="checkbox"/> yego <input type="checkbox"/> oya	
		Nubuhe buryo bundi winjizamo amafaranga?	
4.8. Haramasomo mwitabira atangwa na Leta (yo mwishuri, arebana nubuzima busanzwe)?		<input type="checkbox"/> yego <input type="checkbox"/> oya	
5. Umusaruro ukomoka k'ubuhinzi			
5.1. Mufite imirima ingahe?			
5.2. Umurima wawe ufite ubuso bungana bute?		<input type="checkbox"/> ni-buto <input type="checkbox"/> buraringaniye <input type="checkbox"/> ni bunini	
5.3. Ninde waguhaye ubutaka?			
5.4. Woroye amatungo mu mirima yawe? Ni ayahe?			

# Ausblick

