Caribbean Weather Impacts Group
Supporting risk based decision making

Climate Local Information in the Mediterranean region Responding to User Needs

Identification and translation of user needs for climate information – comparative experiences in the Caribbean and Mediterranean

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Tourism: Tunisia, France (Savoie), Cyprus, Croatia

Renewable Energy: Spain, Morocco, Cyprus, Croatia

Wild Fires: Greece (Spain)

Integrated Case Study: North Adriatic – Veneto/Venice, Croatia

In CLIM-RUN, we tried not to constrain the requests for climate information (seasonal forecasts, decadal predictions & climate change projections)

In CARIWIG, the focus is on climate change projection tools, to be delivered through a CARWIG web service along with additional information:

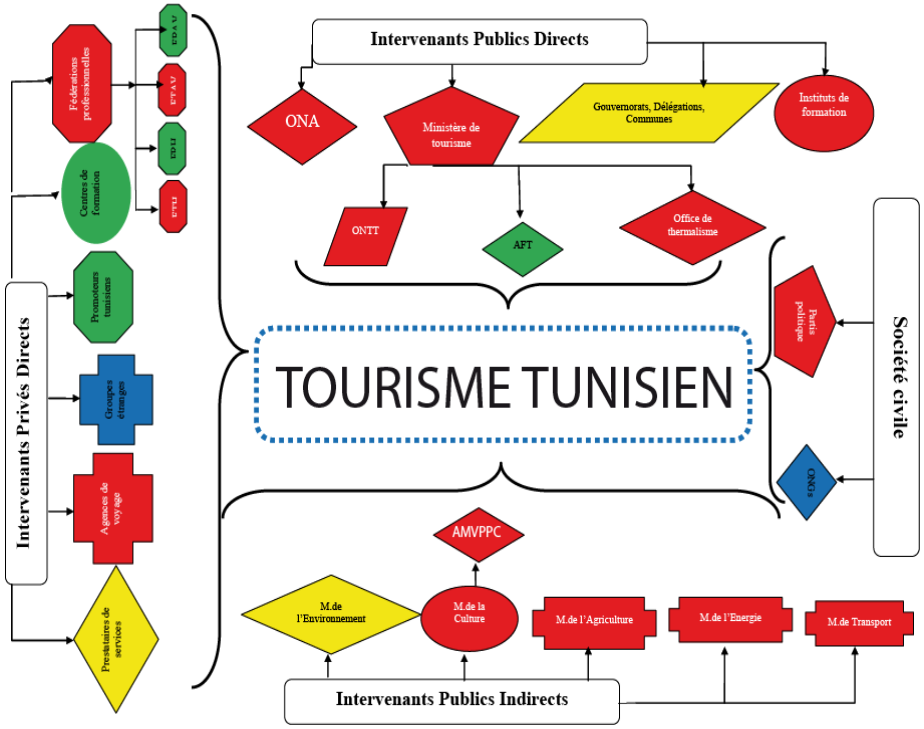
- CARIWIG weather generator (UEA/NCL, UK)
- CARIWIG tropical storm model (UWI, Jamaica)
- RCM-based projections (INSMET, Cuba)

Evaluating utility for **water, agriculture, coastal resources & health**

CLIM-RUN » February 2014. CARIWIG » January 2015.

Identifying and selecting stakeholders

Stakeholder mapping and analysis



Type d'activité		Echelle d'intervention	
⬠	Législatif		Locale
⬡	Investissement et financement		Régionale
▱	Politique		National
◇	Environnement et aménagement		Différente échelles
✚	Economie		
◯	Formation		

e.g., key players in the Tunisian tourism industry

Value of existing contacts

Global Water Partnership – Caribbean (Trinidad)
Caribbean Water and Sewerage Association (St Lucia)
Caribbean Desalination Association (Curacao)
Water Resources Authority (Jamaica)
National Irrigation Commission Ltd (Jamaica)

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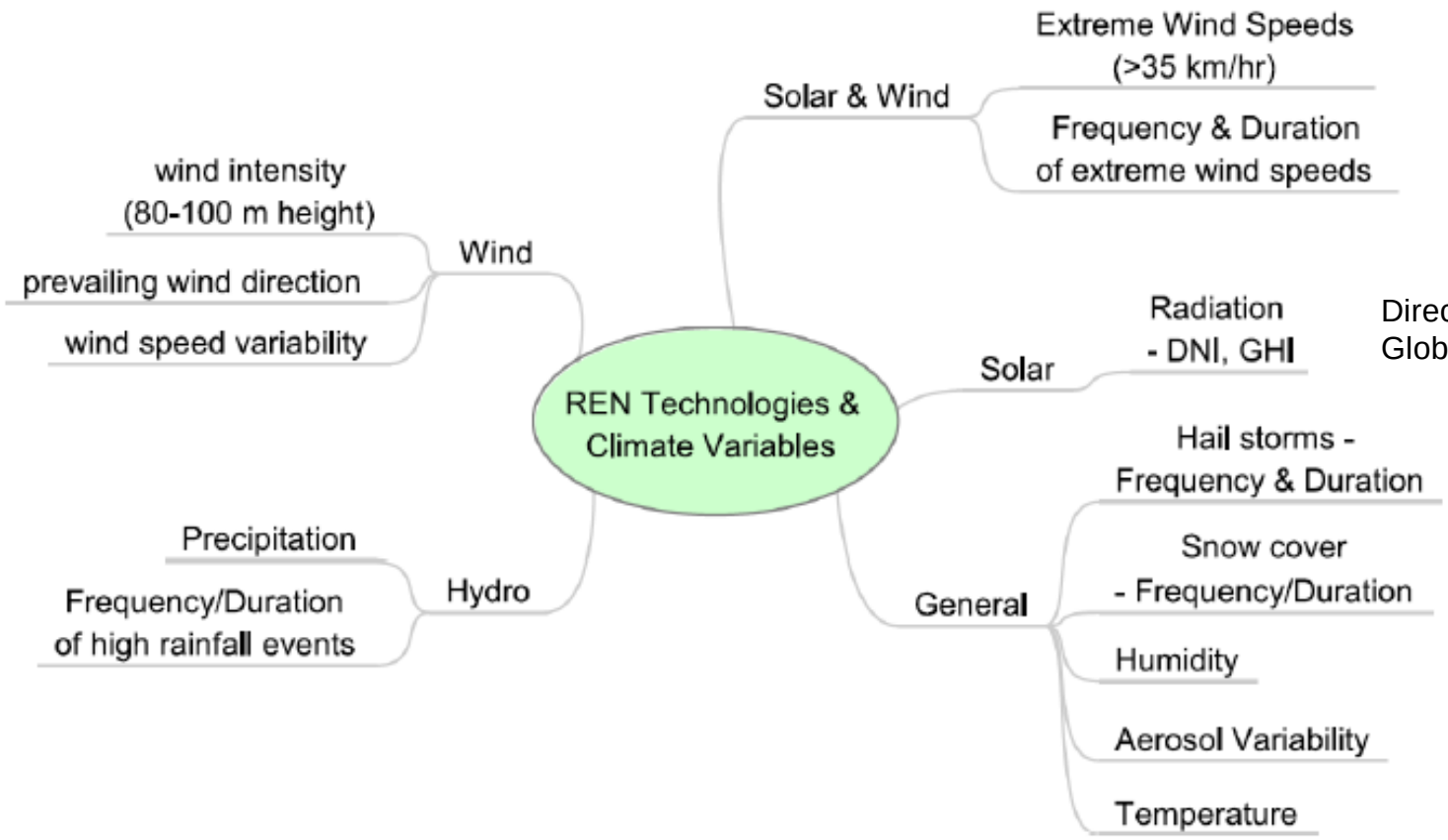
The ‘who’ and the ‘what’

- Who are the climate services stakeholders?
  - Why is climate variability and change relevant to you?
  - How do climate issues fit within your decision making mechanisms and your perception of risk?
- What do you need/want from climate services?
  - Specific data
  - Analysis tools
  - Guidance and training
  - Other things…..

Information came from:

- **Perception & data needs questionnaire**
- **Stakeholder interviews**
- **Local workshops (15 events May-Dec ‘11)**

Synthesis of needs for renewable energy case studies: Variables (also temporal/spatial scales – not shown)



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So ‘what’ do stakeholders need?

In addition to temp/prec and derived indices/extremes:

- Wind (speed, dir., ‘consistency’), snow, humidity, cloud
- Radiation (esp. DNI for solar energy)
- Sea bathing water T, SLR, storm surge, wave height
- Local winds (Bora, Scirocco) and dust storms
- Tourism comfort indices & Fire Weather Index

More interest in next 20-30 years (50 years at most)

i.e., seasonal/decadal rather than ‘climate’ timescales

How are we are meeting your needs?

- 'Translation' process – Climate Expert Team (CET)
- Categorisation of needs (observations/simulations):

  0 not possible to provide; 1 already available;

  2 easy to provide; 3 able to provide, but with a lot of work

- Production of first examples of products and outputs

  – two-page information sheets ('*Making the product usable*')
- Development and running of new models and tools

- Iterative discussion (via Stakeholder Expert Team)

Kingston, 6/7 Feb 2013

Review of tools:

- Does this seem useful/helpful to you?
  - If yes: why? If no: why not?
- What is missing?
- What could be improved?

Feedback:

- Specific additions:
  e.g. include storm speed and rainfall rate per hour in the tropical storm model (those already included are also important – wind speed, storm frequency, landfall rates, storm tracks)
- Desired future enhancements:
  e.g. 3 km resolution for small islands
- More work on exploring/demonstrating ‘reliability’ e.g., for drought
- Better linkages with impacts:
  e.g. link tropical storm model with storm surge modelling and SLR
- Help with development of tools:
  e.g data from water and agricultural agencies and companies

Potential utility for decision making – sectoral focus group discussions on identifying possible case studies

Decision-making context:

What kind of climate and weather-related events and their impacts do you consider are important for your sector?

What timeframes (past and future) are currently addressed in your organisation when considering weather & climate-related issues?

What types of weather/climate information do you currently use?

Does your institution currently have access to regional/national seasonal forecasts (local/regional climate change projections?) Are they useful or not?

What is your priority climate change related implementation programme for the next 5 years?

From long workshop list, have identified 10 case studies which are about to start:

- **Drought in 4 sub-regions (W/E/N/S) – RCM projections**
- **Water resources in Jamaican watershed – tropical storm model/RCMs**
- **Health sector in Trinidad (dengue or vector-borne disease) – Wgen/RCMs**

Some common messages

- Every case study/user/potential user is different
- The decision making context is key
- So a sectoral focus is important

- Can't assume that users know their needs a priori
- Sending out questionnaires is not optimal (interviews and focus groups work better but more time consuming)

- These steps are complex and time consuming (and can't talk to everyone in depth) but are very important
- Intermediaries/interface tier have a role – but still need some direct dialogue between climate experts and users

- Needs are for much more than just data:
  - Information, interpretation, guidance, demonstration of use……..

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Identifying and translating needs is just one part of what should be an iterative process with feedback, assessment and refinement - with the aspiration that the climate information is actually incorporated in the decision-making process

www.cariwig.org www.climrun.eu

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