



## Development of a Suriname Water Resources Information System (SWRIS)

(June 16, 2009 - September 15, 2010)

# 1<sup>st</sup> Suriname Water Resources Information System (SWRIS)-Dialog

Projectcoordinator:

**Riad Nurmohamed Ph.D. (AdeKUS)**

Date: Aug 27, 2009

Conference Room, University Guesthouse, ADEK University of Suriname



Supported by: AdeKUS-VLIR-IUC Project 4, World Wildlife Fund Guianas, (Semi)- Governmental institutions, Global Water Partnership Caribbean, and the International Association of Hydrological Sciences



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## ● Project gegevens SWRIS (1)

**Project Title:** Development of a Suriname Water Resources Information System (SWRIS)

**Project Location:** Algemeen => Suriname  
Onderzoek => Suriname river basin, Suriname

**Period:** June 2009 – Sept 2010  
(WWF, AdeKUS, Other parties) (16 months)

**Budget** : U\$ 131,275  
WWF: U\$ 107,275  
Other Donors : U\$ 6,750  
Own: U\$ 8,250



## Project gegevens SWRIS (2)

**Project Coordinator:** Dr. Riad Nurmohamed

### Partners:



- \* Anton de Kom University of Suriname: VLIR-AdeKUS-IUC project 4
- \* The Hydraulic Research Laboratory (WLA) of the Ministry of Public Works
- \* The Meteorological Service Suriname (MDS) of the Ministry of Public Works
- \* The Maritime Authority Suriname (MAS) of the Ministry of Transport, Communication and Telecommunication
- \* The Suriname Water Supply Company (SWM) of the Ministry of Natural Resources
- \* BOG, en anderen

### Supporting partners:



- \* World Wildlife Fund Suriname (WWF)
- \* Global Water Partnership-Caribbean (GWP-C)
- \* International Association of Hydrological Sciences



## ● Goals and Objectives (1)

### *a. Academic objectives*

To promote wise use of water resources in Suriname through education, dialogues, data exchange and public relation

### *b. Developmental objectives*

Through research, promote and establish a proper and adequate scientific frame with water resources information in Suriname e.g. a digital water portal (website) in order to promote the conservation of aquatic resources in Suriname.



## ● Goals and Objectives (2)

The specific objectives are:

- To promote and foster human resource development (knowledge and techniques) on integrated water resources management (IWRM) in Suriname focused on sustainable use of water resources, including man-made systems.
- To strengthen water related agencies
- To increase the awareness of fresh water resources systems in Suriname
- To support the formulation of water management policies
- To develop protocols for data collection, processing, analysis and mapping
- To share water resources information in Suriname through a digital water portal



## Expected outputs (1)

- ✓ Development of two course's related to Integrated Water Resources Management (IWMR) linked to Moodle  
*MSc in SMNR*
- ✓ One video about water resources in Suriname **Started!**  
*Boven Suriname, Kuststrook, Nickerie, Coronie gebieden*
- ✓ A website (water portal) of water related information in Suriname **Started!**  
*Model in ontwikkeling door UCC*
- ✓ Small meteorological and hydrological field instruments (e.g. water quality, water level) are bought and made operational, and the observations in the field are regular updated in the website **Started!**  
*2 x per jaar meting: Waterkwaliteitslab AdeKUS*
- ✓ Network stations are mapped and will be operational in a GIS viewer on the website **Started!**



## Expected outputs (2)

- ✓ 2 scientific articles in the field of freshwater resources systems
- ✓ At least two water-dialogues are organized **Started!**

*27 Aug 2009: 1ste, tevens opening project*

- ✓ At least 2 short training programs in the field of water resources management **Started!**

*9-10 Nov 2009: experts CARICOM*

- ✓ At least one person is trained to maintain and update the website **Started!**

*UCC*

- ✓ At least 10 persons from different institutions are trained to operate the small water resources management instruments.

*b.v. 9-10 nov open voor derden; sponsorships*

- ✓ The different water resources institutions have developed an own data share policy/protocols and/or data supply service policy.

*Taak van u hier*





## Doel SWRIS dialoog en Ondersteuning partners

Water portal of water related information in Suriname (SWRIS)

Partners nodig:  
gegevens komt van hun, netwerk, kennisdeling

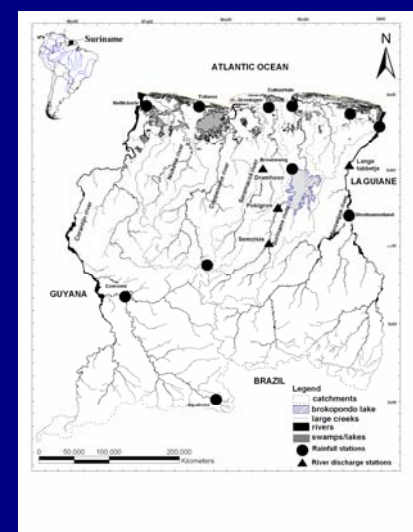
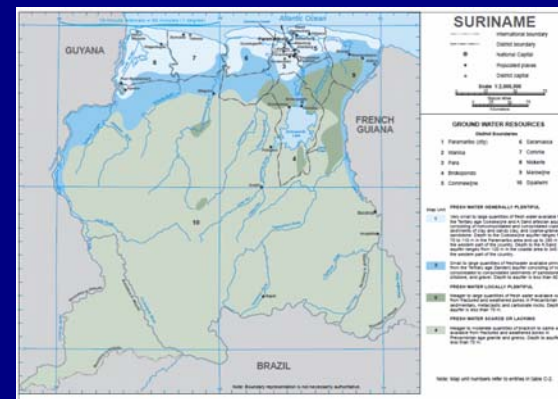
AdeKUS onderhoud SWRIS voor 5 jaren incl. updates

AdeKUS/Narena: analyse, model ontwikkeling en digitalisering doen

# Waterportal SWRIS (1)

Welke informatie is inhoudelijk nodig van **Partners** voor SWRIS:

- ➔ Basis gegevens partners
  - incl. algemeen contact adres
- ➔ Map met observatie stations
  - incl. gegevens station (g. meetw.)
- ➔ Overzicht beschikbare typen gegevens
  - incl. jaren, format, niveau etc.
- ➔ Wetenschappelijke kaarten
- ➔ Beleid van partners voor data





# Waterportal SWRIS (2)

## Wat AdeKUS doet:

### Suriname Water Resources Information System (SWRIS)

Organization	Maps	Data and Database	Request data	Publications/Documents	Upcoming events	Links	Contact
<p>Background SWRIS Water resources information Governmental Agencies <b>Protocol and policy on data</b> SWRIS Committee 2010-2015</p>	<p><b>General maps</b> Map of Suriname Topography 3D topomap <del>Topographic</del> Districts Geomorphology Salt borders Soils Geology Land use coastal area Forest Protected areas Mud banks and mangrove areas</p> <p><b>Water maps</b> <del>Hydrography</del> Rainfall Surface water map Groundwater map Groundwater aquifers Water quality map</p> <p><b>Maps with stations</b></p> <ul style="list-style-type: none"> <li>-Meteorological stations (MDS)</li> <li>-Hydrological and hydraulic and stations (WLA)</li> <li>-Water level stations (MAS)</li> <li>-Groundwater stations (SWM)</li> <li>-Other stations (AdeKUS)</li> </ul> <p><b>Weather</b></p>	<p>Rivers Reservoirs Swamps Lakes Groundwater aquifers List of stations Measurements status</p>	<p>Application form for meteorological data</p> <p>Application form for hydraulic- hydrologic and water quality data</p> <p>Application form for coastal water levels</p> <p>Application form for groundwater data</p> <p>Application form for data from AdeKUS</p>	<p>Publications about water resources in Suriname</p> <p>USDA <i>CJ Ch van SN</i> <i>Boek Almat. ex Paul</i> <i>Water Resources boeken van SWM (2)</i> <i>dikke op bast</i> <i>SWM: scan boeken door waterwet</i> Water laws Water ministers MOP <i>Namen voor Suriname</i></p> <p>Video's Pictures</p>	<p><b>Training</b> <b>Workshops</b> <b>Conferences</b> <b>Water days</b></p>	<p>Education and research in water resources in Suriname SMNR webpage WBL lab <del>Infowebiste</del></p> <p>Water Resources and Hydrology</p> <p>International organizations and networks GWP-C IAHS IUD Unesco Unesco portal CAPNET GWP ex. IUD website, GIS <del>AreGIS models</del> <del>Dress van webfolder op drive E</del></p> <p><b>Instruments for water management</b></p> <p>Publications</p> <p>Software</p>	<p>For more information contact: Dr. R. N. Anton d. Faculty Departm. <del>Leyswe</del> Surinam Phone: 597 Email: f</p>



## ● Webportal SWRIS (3)

### Wat voor voordelen heeft SWRIS voor U als partner instituut:

- ✓ Waardevolle (*dure, geheime*) update basis informatie en kennis op de webportal => kunt naar verwijzen, downloaden, gebruiken voor publicaties, presentaties => hogere en snelle producties
- ✓ Internationalisering van uw instituut en u zit in een netwerk (putten uit resources op SWRIS in Suriname, regionaal en (internationaal))
- ✓ Aanvraag data en informatie via digitaal systeem (ordening, kostenbesparend, sneller, inkomsten, .....!)
- ✓ Wensen/noden kunnen worden verwerkt in SWRIS (Behoud van uw eigen site !)
- ✓ Controle mechanisme tussen partners (door netwerk, SWRIS systeem), geloofwaardigheid.
- ✓ Statistieken bijhouden, aantonen noden bij uw instituut op O&O gebied, meer budgetten nodig, ...



# Waterportal SWRIS (4): voorbeelden

UNESCO.ORG Education Natural Sciences Social S **TU Delft** Delft University of Technology Employee portal | Student portal | Contact

**Water** United Nations Educational Scientific and Cultural Organization

**Grenada Water Information System**



SUSTAINABLE TECHNOLOGIES, ACCELERATED RESEARCH  
Transportable Infrastructures for  
Development & Emergency Support



The Ministry Of Agriculture, Fisheries and Forestry



**India waterportal**

HOME

About the Portal | Write to us | S

**USER LOGIN**

Username: \*

Password: \*

**LOG IN**

» Create new account  
» Request new password

- Home
- Water Portal
- Subcategories
- There are 12
- Beyond dams
- Greywater
- Mosquito con
- Pumping
- Sanitation
- Users interes
- Wastewater
- Water and sa
- Water conser
- Water purific
- Water quality
- Water supply

- HOME
- ORGANISATIONS
- TOOLS & TECHNIQUES
- DATA & RESOURCES
- Home > About the Portal
- About the portal
- Our Partners
- In Media
- Disclaimers

## About the India Water Portal

The India Water Portal is an **open, inclusive, web-based platform** for the water sector and the general public. It aims to draw on the rich experience of water professionals through technology and then disseminate it to a larger audience.

We see the knowledge asymmetry amongst stakeholders of the water sector and our water resources. The Portal seeks to address this asymmetry by bringing transparency of public data and information, and by providing a platform for knowledge exchange.

The ultimate objective of the Portal is to address equity and sustainability by pursuing alternate outreach methods like print media, radio and television. We believe that the India Water Portal has the potential to reach the need it most. We believe that the India Water Portal has the potential to lead to improved practices and informed debates.

The Water Portal grew out of the felt need for a single location portal for the water sector. The themes that came out of the **First Arghyam conference** held in February 2005. The **National**

- METEOROLOGICAL DATA
- RESEARCH
- POLICIES & LAWS
- RIVER BASINS
- WATER BALANCE DEMO
- MAPS & STATISTICS
- PARLIAMENT QUESTIONS
- WATER QUALITY KITS
- CONFERENCE OUTPUTS
- SCHOOLS' SECTION
- SOCIAL ASPECTS & CONFLICTS
- CLIMATE CHANGE
- MORE

# Waterportal SWRIS (5)

## Data Request Form

Before using the form below to request data from Data Centre holdings at CSIRO Marine Research, please read the form and may be held here and to formulate your request in a manner that we can service.

**Please note:** The majority of our data are available, for non-commercial use, at **cost of extraction/cost of transfer** has been received. All data are supplied subject to the terms of our [Data Licensing Agreement](#).

Our data holdings in CSIRO Marine Research Data Centre include comprising the following data types:

Most of our CTD, Hydrology and Biological catch data are available online using Data Tower at <http://www.marine.csiro.au/waterhouse/spyloginpage.jsp>

- **Hydrology data** (bottle data) from our research vessels and various coastal stations, collected over the period (phosphate, nitrate, silicate), at selected depths, collected using Nansen or Kiskin bottles and analysed on board.
- **CTD (Conductivity-Temperature-Depth) data** continuous vertical profiles obtained from CTD casts of research vessels.
- **Vessel underway data** continuously measured variables collected during research vessel voyages, including fluorometer data (if collected) [more description](#)
- **Vessel ADCP (Acoustic Doppler Current Profiler) data** current measurements generated by ADCP including
- **Vessel CTD Winch Log** (\*.wlog) wire tension, wire velocity and wire out: [click on formal search for](#)
- **Moored ADCP and moored current meter data**, collected from CSIRO-operated moored instrument arrays
- **Biological data** collected on research vessel voyages (typically catch composition and length frequency data)

For **Franklin** [raw data file format](#), information (collected in 1996)

**Hydrology CTD, Underway, ADCP, and moored instrument data** is normally available for public release 2 years after ceased subject to the approval of the scientist in charge of the relevant research program.

You can search for vessel-collected Hydrology, CTD, Underway, and ADCP data in our holdings using our **Ships** list which covers 125 years of data. Older datasets may also exist which have not yet been indexed, please complete the

Your Name:

Your Organisation:

(e.g. company, institution, agency, or member of public)

Your Position:

(e.g. undergraduate student, research scientist)

Email Address:

Phone No:

Dataset Description:

Data Type:  
 Vessel/Voyage ID (optional if applicable):

(Include data type(s) - e.g. CTD, Ship name(s) - if applicable, Voyage identifier)

Time Period(s) Of Interest (if applicable):

Start date:  
 End date:  
 (Or: all dates)

(e.g. Nov 1994 to Dec 1995, Jan 1996 etc)

Geographic Area:(Lat & Long)

Northern limit (deg.):  
 Southern limit (deg.):  
 Western limit (deg.):  
 Eastern limit (deg.):

(You must provide latitude and longitude coordinates - either bounding coordinates or a specific location)



## Vragen

Algemene vragen over het project en SWRIS kunnen nu

Vragen m.b.t. bijdragen tot SWRIS en  
afspraken etc (ronde tafel)  
na de break



Global Water  
Partnership  
Caribbean



Supported by:

AdeKUS-VLIR-IUC Project 4, World Wildlife Fund Guianas, (Semi)-Governmental institutions, Global Water Partnership Caribbean, and International Association of Hydrological Sciences

# Development of a Suriname Water Resources Information System (SWRIS)

Grantee: Anton de Kom University of Suriname | 16 June 2009- 15 Sept 2010 | Contract WWF KR-70 & AdeKUS |

Funding: The Royal Dutch Embassy, Agreement # 16584 and WWF Netherlands Agreement # 100096 |

Contact address: AdeKUS, Faculty of Technology, Department Infrastructure, Building 16, Leysweg, POB 9212, Suriname, Ph: 597-465558 ext 351 F: 597-495005 E: [ftew-infra@uvs.edu](mailto:ftew-infra@uvs.edu)

# BREAK





## ● Ronde Tafelbespreking

1. Uw visie als partner voor SWRIS ?
2. Als uw organisatie accoord gaat met deze bijdrage !
3. Welke extra wensen heeft uw organisatie ?
4. Mogelijke problemen die U verwacht ?
5. Afspraken maken wanneer welke data beschikbaar kan worden gesteld en hoe !
6. Data policy ontwikkeling ?  
=> A4 richtlijnen, beleid, snelheid van beslissingen, etc
7. Idee is uitbreiding/aansluiting van meerdere instituten die data verzamelen