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DACCIWA

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Deliverable

D8.2 Field campaign outreach

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P	Prototype	
D	Demonstrator	
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1 Introduction

This document provides an overview over the media strategy and the outreach activities that took place before and during the main DACCIWA field campaign in June/July 2016 and gives an outlook to the planned actions.

Dissemination activities for the outreach of the main field campaign were organised by Mat Evans (WP8-leader), Cyrille Flamant (technical coordinator aircraft campaign) and the project coordinator and manager at KIT. The actions were planned well in advance of the field activities by the dissemination team, which was founded at the kick-off meeting in April 2014. Individuals responsible for contacts to the national press of all the countries involved in DACCIWA were defined to allow a coordination of the different activities. At the 2015 project meeting in Toulouse the media strategy was presented and adapted according to suggestions from the DACCIWA community.

In response to the terroristic act at Grand Bassam in Côte d'Ivoire in March 2016 the dissemination team and the steering committee decided that that for the sake of the security of the researchers all press releases and outreach activities should be postponed to after the end of the campaign. Posts in social media platforms were limited in number and detailed geographic information were withheld.

Despite this major drawback, all planned dissemination activities took place and created a good impact and visibility in various media and within the scientific and main stakeholder communities.

2 Preparation of the field campaign

2.1 The dissemination team

As foreseen in the DoW a dedicated dissemination team was founded at the kick-off meeting in Karlsruhe in April 2014. It currently includes the following members:

Organisation	Name
UoY(Chair)	Mat Evans
KIT	Peter Knippertz
KIT	Cornelia Reimann
DLR	Hans Schlager
UPS	Celine Mari
UPS	Catherine Liousse
ETHZ	Tanja Stanelle
KNUST	Sylvester Danour
OAU	Gbenga Jegede
MO	Paul Field
ECMWF	Angela Benedetti
UNIVMAN	Sophie Haslett (responsible for social media)

The dissemination team holds telecons every 3 month and benefits from the experience of their members with regard to media interactions and from the contacts and knowledge of their associated press offices. The dissemination team developed the overall media strategy for the campaign and coordinated all agreed activities to provide a convincing, balanced and coherent stream of information to the various target groups involved.

2.2 Media strategy

The media strategy summarised in this subsection was elaborated by the dissemination team during the period leading up to the field campaign. Both conventional and social media were considered. To ensure the widespread implementation of these actions national press contacts were defined for each “DACCIWA country”.

Those are the identified fields of activity and responsible persons:

- DACCIWA Newsletters with special foci on the preparation and realisation of the field campaign (KIT project management)
- Public events at the field sites (field site coordinators)
- Coordinated press releases (national press contacts, press offices)
- Social media: postings at Twitter, Instagram, Facebook (Sophie Haslett, Cathy Liousse)
- Live-blog from each field station (field site coordinators)
- Documentation of the work by professional film and photo teams (UPS, CNRS, KIT)

3 Activities before and during the field campaign

3.1 Press coverage in preparation of the campaign

BBC World Service: Interview with Mat Evans (UoY) about air quality in Africa (25.05.2016) (<http://www.bbc.co.uk/programmes/p03w66z9>)

The Guardian: Article about air quality in Africa with quotes from Mat Evans. (10.07.2016) (<https://www.theguardian.com/cities/2016/jul/10/no-escape-nairobi-air-pollution-sparks-africa-health-warning>)

3.2 Newsletter with focus on the field campaign

3.2.1 DACCIWA Newsletter

The DACCIWA project releases a biannual newsletter that is sent to the scientific community and to all identified stakeholders including for example diplomatic contacts in West Africa, weather services etc. At the moment the newsletter is sent to approx. 200 individuals.

The newsletter released in May 2016 had a strong focus on the preparation of the field campaign and the newsletter from November 2016 will focus on the actual realisation of the field campaign.

The latest and all former newsletters can be downloaded from the DACCIWA webpage: <http://www.dacciwa.eu/stay-informed/newsletter>. It is also possible to subscribe to receive future newsletters at the same site.

3.2.2 EUFAR Newsletter

As part of EUFAR’s transnational access activity, EUFAR funded additional flight hours, and provided travel and subsistence support to 3 research campaigns (APSOWA, MICWA and OLACTA-2) that were clustered with DACCIWA. Therefore the DACCIWA project was covered in two EUFAR newsletters.

- September 2016 report of the campaign: <http://www.eufar.net/documents/6076>
- June 2016: announcement of the campaign: <http://www.eufar.net/documents/5977>

3.3 Public events during the field campaign

3.3.1 Ambassadors day at the aircraft base in Lomé

A visit of the French, German and EU Ambassadors and their personal assistants was organized at the Military Airport on 28 June from 1400 to 1700 LT by Caroline Lamorthe of SAFIRE involving the DACCIWA participants Mat Evans (WP8 coordinator), Christine Chiu (WP 5 coordinator), Peter Knippertz (DACCIWA coordinator), Cyrille Flamant (Aircraft Campaign coordinator), Hugh Coe (WP 4 coordinator) and Caroline Lamorthe. The visit of His Excellence M. Marc Fonbaustier (French Ambassador), His Excellence M. Nicolas Berlanga-Martinez (EU Ambassador) and His Excellence M. Christoph Sander (German Ambassador) began with a presentation of the facility made by Colonel Djoguigou Bararmna-Boukpassi (Air Base Commander). It then continued with a 20 min presentation of the DACCIWA program by Peter Knippertz (Figure 1) followed by a discussion during which the Ambassadors inquired about the benefits of the program for Togo and made suggestions on how to tighten the links between DACCIWA and the academic research in Togo, and the Togolese Universities in particular. The idea for a public DACCIWA presentation organized on 15 July at the University of Lomé (see next section) was developed during this visit. Unfortunately the ambassadors could not visit the aircraft because they were undergoing inspection by the Ghanaian authorities in the process of obtaining overflight permission. Nevertheless, His Excellence M. Marc Fonbaustier and His Excellence M. Nicolas Berlanga-Martinez had the chance to see the landing of the three DACCIWA aircraft coming back from Accra Figure 2.



Figure 1: From right to left: Colonel Djoguigou Bararmna-Boukpassi (Air Base Commander), Caroline Lamorthe (SAFIRE), His Excellence M. Marc Fonbaustier, His Excellence M. Nicolas Berlanga-Martinez, Peter Knippertz (KIT, DACCIWA coordinator), His Excellence M. Christoph Sander (behind PK), Martin Schlecht (German Embassy), Tete Djimedo Tiassou (EU Embassy), Guillaume Quelin (French Embassy) and a collaborator of the Air Base Commander.

© C. Flamant



Figure 2: From right to left: Christine Chiu, Mat Evans, Hugh Coe, Peter Knippertz, His Excellence M. Marc Fonbaustier, Guillaume Quelin and His Excellence M. Nicolas Berlanga-Martinez in front of one of the Air Base Hangar on the Military Airport of Lomé, waiting to see the landing of the ATR 42, the TwinOtter and the Falcon 20 on their way back from Accra. © C. Flamant

3.3.2 Public event at the University Lomé

A DACCIWA public event was organized at the University of Lomé on 15 July starting at 1430 LT by Prof. Koffi Tozo (1st Vice Dean of the Science Faculty) and Prof. Kokou Sabi. The event was mainly targeted at students, Togolese researchers and governmental agencies, but many representative of private companies interested in climate research were also present and thus the Auditorium turned out to be quite crowded (~200 people, see Figure 4). The DACCIWA delegation for this event was composed of Andreas Fink (DACCIWA coordination, representing Peter Knippertz), Cyrille Flamant (Aircraft coordinator), Céline Mari (WP3 coordinator), Joel Brito (aircraft researcher) and Sebastien Chastanet (reporter).

After welcoming words from the 1st Vice-President of the University of Lomé, Prof. Komlan Batawila and His Excellence M. Nicolas Berlanga-Martinez (EU Ambassador), the event was organised around four presentations:

1. "Atmospheric Chemistry" by Kokou Sabi (University of Lomé, see Figure 5)
2. "Pollution in West Africa" by Céline Mari
3. "The DACCIWA project" by Cyrille Flamant (see Figure 3)
4. "First highlights from the DACCIWA aircraft campaign based on Mass spectrometer measurements made in the ATR" by Joel Brito

Andreas Fink, Cyrille Flamant, Céline Mari and Joel Brito were then convened to a debate with the assembly, chaired by Prof. Koffi Tozo. The debate lasted about 1 hour and was very animated and fruitful. The DACCIWA researchers used the occasion to describe in more depth the organisation of the campaign, the experimental strategies and the links with research in Togo.

This event received local TV and press coverage. Céline Mari also gave an interview to a local TV channel. (see e.g p.11. https://www.google.de/search?q=togomatin+dacciwa&ie=utf-8&oe=utf-8&client=firefox-b&gfe_rd=cr&ei=ipDWV_L_JePv8AerLWIBQ)



Figure 3: Cyrille Flamant presenting the DACCIWA project.



Figure 4: Audience at the University of Lomé sipping Céline Mari's words during her presentation on Pollution in West Africa.



Figure 5: Andreas Fink, His Excellence M. Nicolas Berlanga-Martinez and Guillaume Quelin (representing His Excellence the French Ambassador) paying close attention to Prof Kokou Sabi's presentation on Atmospheric Chemistry.

Source all pictures: <http://www.univ-lome.tg/index.php/component/k2/item/788-projet-dacciwa-des-scientifiques-europeens-et-togolais-en-conclave-a-l-universite-de-lome>

3.3.3 VIP-Event in Savé

A visit to the Savè supersite was organized on the 19 of July 2016 in collaboration with INRAB (Institut National des Recherches Agricoles du Bénin) (Figure 6). Representatives of Beninese DACCIWA partners (ASECNA (Agence pour la sécurité de la navigation aérienne en Afrique), Abomey-Calavi University, INRAB, DNM (Direction National de la Météorology) and ANAC (Agence Nationale de l'Aviation Civile)) and of local authorities (Mayors of Savè and villages around Savè) were invited to visit the site and the instrumentats. Thirty individuals both from Cotonou and Savé and its surroundings joined this event (Figure 7). It gave DACCIWA researchers the opportunity to thank all the partners and local authorities who supported the project. It was also a great opportunity to illustrate the outstanding data being collected during the field phase and to reiterate DACCIWA's commitment to work with its partners in the data analysis to meet the objectives of DACCIWA. Amongst other things, a radiosonde was launched during the event (Figure 8). Local and National radios and TV covered this event.

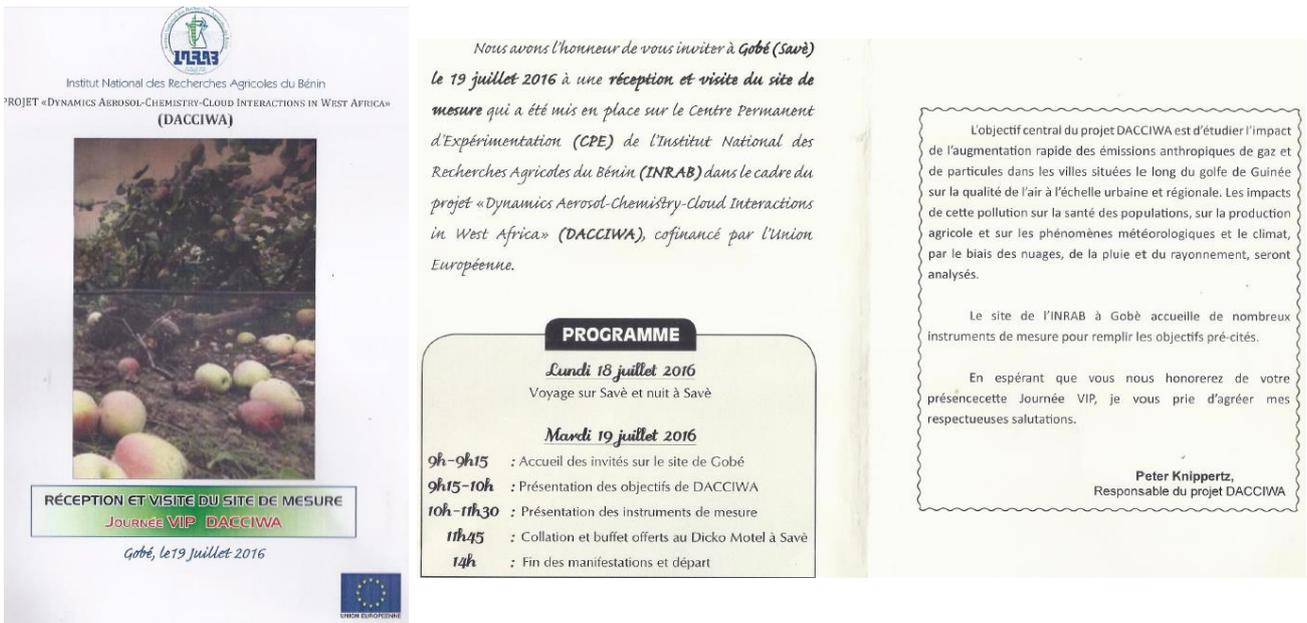


Figure 6: Invitation and agenda of the VIP day at Savé



Figure 7: Group picture of the VIP day
© A. Wieser



Figure 8: Demonstration of a radiosonde launch.
© A. Wieser

3.3.4 Press coverage in Kumasi

The press office of the Kwame Nkrumah University of Science and Technology (KNUST) launched several press activities in mid-July 2016 including visits of local TV and written press at the

supersite. These activities led among other things to the following well received articles at LinkedIn, at the online journal “Graphic” and the news channel “3news”

Coverage at the KNUST website

- <https://www.knust.edu.gh/news/news-items/dacciwa-project-commences-in-knust>

Articles in the online journal “Graphic”

- <http://www.graphic.com.gh/temp/knust-to-build-database-for-accurate-weather-forecasting.html>
- <http://www.graphic.com.gh/news/general-news/knust-eu-build-data-base-for-accurate-weather.html>

3news

- <http://3news.com/7m-euros-climate-research-to-boost-agriculture-and-livelihoods/>

LinkedIn

- <https://www.linkedin.com/pulse/research-next-generation-weather-climate-models-underway-domfeh> .

3.3.5 Parley with the University Community and general public in Ile-Ife

An awareness program was held during the last week of May 2016 to sensitive members of the Obafemi Awolowo University (OAU) community and general public in Ile-Ife and the immediate environs (Figure 9) on the import of the DACCIWA project particularly, the connections between the rising levels of air pollution and long-term climatic impacts for southern West Africa (SWA). This interaction was timed appropriately just before the take-off of the field measurement phase (Work Package, WP1).

In addition, members of the Atmospheric Physics Research Group (APRG) at OAU invited colleagues from sister universities in Nigeria in order to publicize DACCIWA-related scientific activities and prepare for collaborative research during the measurement phase (Figure 10). Efforts were also made to reach out to governmental agencies such as the Nigeria Civil Aviation Authority (NCAA) to key into the outcomes from DACCIWA project to address missing link between the academia and government department in the area of policy advocacy.



Figure 9: The DACCIWA project lead in Nigeria, Prof. Gbenga JEGEDE, addressing the University delegation led by the Head, Department of Physics and Engineering Physics, OAU, Prof. Marcus ELERUJA while inspecting the facilities at the DACCIWA project site in Ile-Ife, Nigeria on May 30, 2016.



Figure 10: Demonstration of launch of a tethered balloon radiosonde system at the DACCIWA project site, OAU, Ile-Ife to scientific visitors from the Federal University of Akure and University of Ibadan on June 17, 2016.

3.4 Coordinated press release

On 30 August 2016 a coordinated press release by the press offices of the German, UK and French beneficiaries were launched. As already pointed out in Section 1, these press releases were published after the campaign to avoid a potential security problem for the researchers in the field.

3.4.1 Content of the press release

- Explanation of the scientific problems targeted in the campaign
- Motivation of the DACCIWA project as a whole
- Implementation of the field activities and the different measurements and sites
- Some first results
- Outlook on data analysis and expected outcomes

3.4.2 Links to the press releases

- KIT: http://www.kit.edu/kit/english/pi_2016_118_fires-pollute-the-air-in-west-africa.php
- UoY: <https://www.york.ac.uk/news-and-events/news/2016/research/aircraft-to-track-west-africa-pollution/>
- UNIVMAN: <http://www.manchester.ac.uk/discover/news/scientists-take-to-the-skies/>
- DLR: http://www.dlr.de/dlr/en/desktopdefault.aspx/tabid-10081/151_read-19160/#/gallery/24183
- CNRS: <http://www2.cnrs.fr/presse/communiqu/4663.htm>
- Max-Planck-Institute for Chemistry Mainz (Collaborating in the aircraft campaign): <http://www.mpic.de/aktuelles/pressemeldungen/news/abgasfahnen-ueber-westafrika-zeigen-hohen-anteil-an-organischem-material.html>

3.4.3 Press coverage

CNRS France

Interviews with Cyrille Flamant (UMPC) and Cathy Liousse (UPS)

- *Sciences et Avenir* (Loïc Chauveau): <http://www.sciencesetavenir.fr/nature-environnement/pollution/20160831.OBS7219/en-afrique-de-l-ouest-l-air-est-de-plus-en-plus-malsain.html>

- *Journal de l'Environnement* (Stéphanie Senet):
<http://www.journaldelenvironnement.net/article/les-decharges-sauvages-asphyxient-les-villes-d-afrique-de-l-ouest,74184>
- *Journal de la cité des sciences et de l'industrie* (Veronique Marsollier): ([link](#))
- *Afrique Magazine* (Julien Wagner): no article to date
- Cathy Liousse also participated by phone to live show on *RFI radio*
<http://www.rfi.fr/emission/20160901-menopause-femme-gyn%C3%A9cologie-christian-jamin>

Also see

- http://up-magazine.info/index.php?option=com_content&view=article&id=6086:dacciwa-mieux-comprendre-les-impacts-de-la-pollution-en-afrique-de-l-ouest
- <http://www.puissance2d.fr/Mieux-comprendre-les-impacts-de-la-pollution-en-Afrique-de-l-Ouest-avec-le-programme-DACCIWA>
<http://www.africadiligence.com/au-guichet-de-la-pollution-latmosphere-africaine-fait-ses-comptes/>
- <http://www.actu-environnement.com/ae/news/climat-air-decharges-ciel-ouvert-dechets-impact-afrique-ouest-27414.php4>

UK Universities

Articles:

- Phys Org: <http://phys.org/news/2016-09-scientists-track-west-african-pollution.html>
- Africa Times: <http://africatimes.com/2016/09/09/africans-head-to-mecca-west-african-climate-research-kenyan-credit-report-issues/>

Interview requests Mat Evans

- *Radio Yorkshire* interview in October
- *The Guardian* Interview in October

DE institutions (KIT, DLR, MPI Mainz)

Articles:

- Köln Nachrichten: <http://koeln-nachrichten.de/bildung/studien/dlr-forschungsflugzeug-ueber-westafrika-unterwegs/>
- Mein Bezirk: <http://www.meinbezirk.at/stubai-wipptal/leute/wolkenjaqd-in-westafrika-d1846034.html>
- Kooperation International: <http://www.kooperation-international.de/detail/info/feuer-belasten-die-luft-in-westafrika.html>
- Windkraft Journal: <http://www.windkraft-journal.de/2016/08/30/westafrika-rapide-wachsende-bevoelkerung-massive-urbanisierung-komplexe-meteorologische-einfluesse/91189>
- Alphagalileo: <http://www.alphagalileo.org/>
- Schattenblick: <http://www.schattenblick.de/infopool/umwelt/internat/uiaf0105.html>
- Aerosieger: <http://www.aerosieger.de/news/8184/dlr-zur-aerosolforschung-in-der-atmosphaere-westafrikas.html/>
- Research in Germany: <http://research-in-germany.org/default/en/research-landscape/news/2016/08/2016-08-30-chasing-clouds-in-west-africa.html>
- Awoko (Newspaper Siera Leone): <http://awoko.org/2016/09/01/sierra-leone-news-bush-fires-polluting-west-africa/>
- Analytic News: <http://www.analytik-news.de/Presse/2016/524.html>

- Flug Revue: <http://www.flugrevue.de/zivilluftfahrt/airlines/dlr-atmosphaeren-messfluege-in-westafrika-mit-der-falcon-20/697538>

3.5 Social Media

Sophie Haslett (UNIVMAN), one of the members of the dissemination team, coordinated the social media activities.

For security reasons posts in social media during the campaign were limited and posts did not include any detailed geographic information. The emphasis was therefore moved from live-blogging etc. during the campaign to focusing more on results as they come out.

3.5.1 Instagram

DACCIWA-related photos, for example of places, people, equipment, maps, visualised data etc. were shared, through the DACCIWA Instagram account (www.instagram.com/dacciwa). Adequate pictures were sent to the social media coordinator. Some of them were put out on the Instagram account as they came in, but also many of them were kept to release over the next year to keep the interest in DACCIWA up.

3.5.2 Videos

Videos produced by DACCIWA researchers were collected by the social media coordinator and linked to the different social media streams (Twitter, YouTube, etc).

Some examples of videos linked to DACCIWA already published are:

- A first video trailer of the professional film team (see section 3.7.4) published together with the press releases (<https://www.youtube.com/watch?v=l4aeUkpyh7w&feature=youtu.be>)
- An interview from Cathy Liousse on WP2 in Cotonou: <https://www.youtube.com/watch?v=94H1xyNbuPE>
- The Meteorological Bulletin on National Togolese TV prepared by the Direction Générale de la Météorologie Nationale on 13 July 2016 explicitly acknowledged the DACCIWA project and its participants based in Lomé (first 30 seconds of the Bulletin). <https://youtu.be/5lwmGYCcMJo>

3.5.3 Twitter

There is a twitter feed (@DACCIWA) coordinated by Sophie Haslett where selected messages / images during the campaign were put out to raise more awareness and retweets were done.

3.5.4 Facebook

There is a Facebook page covering some of the WP2 activities coordinated by Cathy Liousse, which was particularly active during the field campaign (<https://www.facebook.com/dacciwa.eu/>)

3.6 Blogs

For security reasons the DACCIWA dissemination team and the SC decided not to have a blog open to the wider public during the campaign. Nevertheless news and first scientific results from the different field sites were shared within the DACCIWA community through regular reports either on the DACCIWA SharePoint or on other servers (<https://sci.ncas.ac.uk/dacciwa/> for Kumasi; <http://dacciwa.sedoo.fr/> for Savé and Ile-Ife).

DACCIWA beneficiary DLR had a press person visiting the aircraft activities in Lomé (Fabian Locher) who produced a blog that became available to the public together with the press release. This blog will also be interlinked to the other social media channels.

<http://www.dlr.de/blogs/home/aeronautics/Ein-Tag-am-Tropenhimmel.aspx>

3.7 Photo and video documentation of the field work

3.7.1 Press exposé

In 2015 the dissemination team prepared a press exposé (attachment 1) that was created to raise interest of film crews to accompany the DACCIWA field campaign. The press exposé was spread by the press offices of the beneficiaries, the local press coordinators and to known press contacts.

Unfortunately this activity did not generate the expected attention. Therefore it was decided to have a professional photographer from UPS and a film team from KIT to document the field work. Additionally the transport company Ulisse who organised the transport of scientific equipment to the supersite in Savé produced a documentary that is available to DACCIWA.

3.7.2 Ulisse

Documentation of the transport and setup at Savé: <https://ulisse.exposure.co/ulisse-mer-terre-air>

3.7.3 Professional photographer of UPS

A professional photographer documented the following places with photos and small videos: aircraft campaign in Lomé (DACCIWA operation Center, Military Airbase, ATR 42 flight), Savé super site, WP2 campaign in Cotonou.

<http://dacciwa.sedoo.fr/source/photos/index.php?nav=photos>

3.7.4 Professional film team of KIT

The professional film team of KIT documented the following sites and activities:

- WP2 campaign in Abidjan (Côte d'Ivoire)
- Radiosonde campaign in Lamto (Côte d'Ivoire)
- Radiosonde campaign and data digitization in Accra (Ghana)
- Campaign at Kumasi supersite (Ghana)
- Aircraft campaign in Lomé (Togo)

The team of KIT will compile their own material but also that from the other sources (Ulisse and UPS) into a short trailer on YouTube (first version for press release already available: <https://www.youtube.com/watch?v=l4aeUkpyh7w&feature=youtu.be>)

Currently, a longer version is being produced and will be published on YouTube that includes the mission, the implementation of the field campaign, interviews with different main researchers and some first results. This video is expected to be very useful for media attention and also for the policy briefs to be published towards the end of the project.

Interviews and material that cannot be used for this film will be published on the DACCIWA webpage and/or linked to the different social media channels.

4 Future activities

Although the major emphasis was on engagement around the period of the observational campaign in the summer of 2016 there will be subsequent efforts:

- The newsletter will continue to inform the main stakeholders about the DACCIWA activities and findings.
- Social media posts will continue to keep up interest in DACCIWA and will especially be used for the announcement of future important scientific results and publications.

- Following the current press release more requests for interviews are expected. E.g. Mat Evans already has a request to write an article for “The Observer”, a first-class online publication.

5 Annex

5.1 DACCIWA Press Exposé

Press-Synopsis

Field campaign DACCIWA June-July 2016

1. Motivation / Problems

i. Environmental pollution

Urban development: West Africa is among the regions with the fastest growing population in the world: from 340 million now to 800 million people by the middle of this century. Increasing industrialization and urbanization associated with traffic and domestic fires will lead to a rapid increase in the emission of trace gases and particles, which may exceed those of China if no regulation occurs. Air quality and health degradation are expected.

Waste burning: At the peripheries of large African cities, people live close to several meters high layers of electronic and plastic waste. Measured emissions can exceed official estimates by a factor of 20. A large fraction of this waste as well as polluting vehicles are illegally imported from Europe.

Gas flares:

After the environmental damage on soils and ground water caused by oil production in the Niger River Delta, now air pollution caused by gas flares is becoming an increasingly severe health and environmental problem. About 10 percent of the world's gas flares are located in Nigeria (only topped by Russia).



(left) Gas flares at night over the Niger River Delta on a satellite image <http://earthobservatory.nasa.gov/IOTD/view.php?id=83306>, (right) Gas flares



Road in the 5-million megalopolis of Abidjan, Ivory Coast. (@S. Keita)



Measurement on waste burning site near Abidjan Ivory Coast (@S. Keita)



ii. Aerosols and effects on the climate

Rapidly expanding cities, such as Lagos in Nigeria, Accra in Ghana and Abidjan in Ivory Coast, are producing large amounts of harmful aerosols. Increase in these smallest particles in the atmosphere may affect cloud formation and solar irradiation, which in turn may lead to changes of rainfall and temperature.

2. About DACCIWA

(Dynamics-aerosol-chemistry-cloud interactions in West Africa)

Objective: Investigation of the effects of air pollution on humans and nature in West Africa

Funding: 8.75M€ (European Union 7th framework programme)

Novelty: First-ever evaluation of influence of air pollution on weather and climate in West Africa

Who is involved: More than 16 leading organization in atmospheric and health science from Germany, UK, France, Switzerland, Nigeria, Ghana, Ivory Coast and Benin

Measurements: Health statistics, ground stations in urban and rural environments including powerful radars and lidars, 3 large research aircraft, unmanned aerial vehicles, weather balloons

Web-site: www.dacciwa.eu

f DACCIWA-WP2 <https://www.facebook.com/dacciwa.eu/>

Project coordinator: Prof Peter Knippertz, Karlsruhe Institute of Technology, peter.knippertz@kit.edu

Further reading: Knippertz et al., 2015: The possible role of local air pollution in climate change in West Africa, Nature Climate Change, 5 (815–822), <http://dx.doi.org/10.1038/nclimate2727>
 Knippertz et al., 2015: The DACCIWA Project, Bull. Amer. Meteor. Soc. 96, 1451–1460., <http://dx.doi.org/10.1175/BAMS-D-14-00108.1>

3. Possible film sequences

Depending on the focus and length of the sequence we suggest a basic package and building on this three possible extensions. Internationally renowned atmospheric and health experts with media experience can provide interviews on various aspects of the project and field campaign.



1. Emissions, Urban air pollution and Health
 - 1a. Abidjan, Ivory Coast
 - 1b. Cotonou, Benin
2. Aircraft campaign base
 - Lomé, Togo
3. Measurement supersites
 - 3a. Kumasi
 - 3b. Savé

1. Basic package: Emissions, Urban Air Pollution and Health



Emissions, Air composition and Health measurements: domestic burning, charcoal making, traffic site (@Cathy Liousse)

Filming could cover long-term and short-term measurements of air composition and health in Abidjan and/or Cotonou on traffic site, waste burning site and residential site, as well as interviews with residents and DACCIWA scientists.

2. Add airborne atmospheric chemistry measurements



Research aircrafts (BAS Twin Otter, SAFIRE ATR42, DLR Falcon 20)

The aircraft base for the field campaign will be in Lomé, Togo. Filming could show the aircraft at the airport and during takeoff and landing, onboard instruments (inside and outside) possibly also during flying. Interviews with instrument operators, scientists and pilots are possible. The atmospheric chemistry measurements complement those at urban locations to get a regional picture of the composition of the atmosphere over West Africa.

3. Add weather and climate aspects

Filming as in 2, but also covering the scientific question of pollution influence on weather and climate.

4. Add meteorological ground measurements



(left): KIT cube (<http://www.imk-tro.kit.edu/4635.php>): (right): Wind measurement in Ile-Ife, Nigeria (@Gbenaa Jeaede).

Filming could be expanded to cover one or several of the DACCIWA ground supersites in Savé (Benin), Kumasi (Ghana) and Ile-Ife (Nigeria), possibly including balloon launches and unmanned aerial vehicle operations. Interviews could be done with instrument operators, scientists and local people.