

**GEO-NETWORK OF
LATINAMERICAN-GERMAN ALUMNI
(GOAL)**

Newsletter No 1

December 2016

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1. German coordinator's note

*Prof. Jörg Matschullat, Professor für Geochemie und Geoökologie, Director IÖZ interdisziplinäres ekologisches Zentrum, TU Freiberg, Germany,
joerg.matschullat@ioez.tu-freiberg.de*

The 100th, the 10th and the 1st: Colombia, Autumn 2016

What do these cryptic order of magnitude numbers stand for? From September 25 (arrival day) to October 02 (departure day), 38 GOAListas from 13 Latin-American countries and Germany met in Bogotá, Colombia, for the 10th GOAL-network meeting with scientific workshop conference and excursion. It was the 1st meeting on high elevation ground so far, with Bogotá lying between 2,400 and 2,600 meters above sea level – very noticeable by huffing and puffing participants when trying to run or hurry. And it was hosted by the Colombian Geological Survey on the occasion of its 100th Anniversary – a very special date indeed.

And very special it was. We had planned this double anniversary to take place in a truly historical week in Colombia – the week of the peace referendum under the guidance of Peace Nobel price winner President Juan Manuel Santos. While this was purely coincidental it gave a special air to those days. Not just those boundary conditions but just as much the quality of talks, the outstanding excursion programme, guided by Héctor Mora and Flover Gregorio Rodríguez Portillo from the Survey, and by Pedro Patarroyo from the National University of Colombia in Bogotá merit the highest acclaim and applause.

Starting punctually in a very pleasant lecture hall in the survey premises, our workshop received substantial recognition from various sides. Dr. Oscar Paredes Zapata, Director of the Survey, greeted all participants with his visionary talk about the future of the Survey. Dr. Reinhard Babel, Head of DAAD Colombia, elucidated the partly underexplored opportunities of funding and exchange, based on the German Academic Exchange Service, DAAD – our generous sponsor from the beginning.

How does a country like Colombia, with enormous natural and resource richness and yet, partly extreme socioeconomic injustice, 50 years of civil war-like conflicts and major infrastructural deficits recover and make use of its resources without overexploiting them and without compromising the future of Colombians? Such questions, albeit mostly with a geoscience bias, stood in the foreground of our discussions and reflections. The environment with stark elevation gradients, enormous climatological and thus hydrological contrasts, all increase the challenge of natural disasters and prevention strategy, while at the same time targeting a better standard of living, social and educational equality.

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The afternoon of September 28 was dedicated to a visit of the Gold Museum on downtown Bogotá. While most of the historical artefacts are made of gold indeed, the museum is a world-class place for the cultural history of pre-hispanic people in what we call today Colombia. It is a must-see place, hosted by the Banco de la República Colombia with high end museum didactics, almost perfect illumination of the artefacts and bilingual explanations. Seeing this exhibit, which we all devoured, makes everyone understand why the Spanish Conquistadores got so rapidly preoccupied with what they called El Dorado.

Early on September 29, everyone gathered excitedly at the Survey, ready to board the busses and to drive off on our tour north towards Villa de Leyva and nearby sites. Well, we had underestimated the traffic. After more than an hour delay, we finally moved. First towards Zipaquirá, a beautiful lively historical city and location of a famous salt rock mine. The short mine visit turned out to become quite a lengthy one and yet, it was certainly worth the while with a modern architecture cathedral in the public part of the mine caverns and spiritual art abound.

It got dark already, when we entered the even more historic town of Villa de Leyva, former seat of the Spanish Vice-Kings. Barely arrived at the magnificently scenic central square, sirens and tremendous noise made us lightly nervous – not expecting a fire-brigade party at this time of day.

After a good night sleep, September 30 became the highlight of our excursion – a full day of walking from Villa de Leyva into the mountains of Macizo-de-Iguaque, a unique Mesozoic to Cenozoic sequence with rich fossil finds, marvellous and very scenic erosional patterns and ever so often spectacular views. Numerous houses in Villa de Leyva decorate their street sides with ammonite remains and the local museums deliver further insights in local culture, history and natural history. Time flies by too fast to gather all the riches – we simply need to come back.

October 01 was our last excursion day, and yet delivered amazing new insights. While I was not too impressed by the private fossil museum (Museo El Fósil) – the emphasis coming from a well-preserved skeleton of a large Cretaceous marine pliosaurus – due to its hobby-like approach to palaeontology, our stop and guided tour at the Astronomical Observatory Muisca (the latter referring to a local indigenous population) was flabbergasting. In pre-Colombian time, people had set up a place for observations that is no less than Stonehenge and similar artefacts in other paces of the world. Absolutely worth visiting. On the return ride to Bogotá, most of us marvelled at the diversity of everything in this country, be it geology, biota, climate zones, culture and ethnical groups – I suppose that most of us felt some sadness for having to leave so soon. The busses brought us back safely and after lots of hugs and some farewell depression moods, we all had to go our ways, since most of us had long ways home to cover.

Departure day saw the participants partly leaving very early to their home or professional destinations. Those, who had late departures on October 2, could enjoy a beautiful day with impressions from the voting (and peace party) activities in downtown Bogotá or marvel at the stunning views from Monserrate, high above the city (ca. 3200 m a.s.l.). The access is via the possibly one of the steepest funiculars anywhere, working since 1923; and the view from the top possibly one of the most spectacular ones over any city worldwide. We all wish to come back here – maybe we may contribute to the challenges ahead.

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2. Remando contra la corriente

Ing. Agr. MSc. Nestor Molinas, Coordinador del Centro de Liderazgo en Agricultura, Dirección de Extensión Universitaria, Facultad de Ciencias Agrarias – Universidad Nacional de Asuncion, nesmoli@gmail.com

Desaprender lo aprendido es lo más difícil, por ello el Programa de Desarrollo Comunitario (PSC) de la Facultad de Ciencias Agrarias (FCA) de la Universidad Nacional de Asunción (UNA), Paraguay es un constante desafío en general, desde la facilitación de los espacios con las personas hasta la generación de proyectos, desde la concertación de modalidades de trabajos hasta la puesta en marcha de aquellos. En todo momento, la fuerza de la inercia, de aquello que: **El técnico sabe todo; el técnico es dueño de la verdad; el agricultor no quiere trabajar ni se quiere capacitar; el agricultor no sabe nada, etc.**, nos invitan a nadar a favor de la corriente y hacer siempre más de lo mismo.

Es vital empezar por uno mismo el ejercicio de la autocritica para romper la fuerza de la inercia, para desarrollar la capacidad de remar contra la corriente. Es fácil transmitir, enseñar y pasar los conocimientos a la gente, de esta forma pasamos el mensaje que el técnico sabe y mucho. Esto es malo? Claramente no!! Sin embargo, se debería hacer el contrapunto, de ofrecer chances a la otra parte, a la gente, con quien dichosamente, nos toca interactuar, de oír, escuchar e intercambiar con ella, ideas, pareceres, opiniones, puntos de vistas, disensos, etc., de manera a generar conocimientos más diversos, de los cuales, ellas sean efectivamente coautoras.

Este tipo de proceso exige coraje pero nos permite desprendernos de temores que nos atan. Digo que temo que la otra persona no sería capaz de esto o lo otro. Estoy diciendo de otro modo, que soy yo el que temo a esto o a lo otro. El temor en si no deja de ser bueno, sirve de alerta para afrontar riesgos. Sencillamente hay que saber administrarlo.

Todo proceso participativo, en donde se quiere romper prejuicios y esquemas muy convencionales conlleva una alta dosis de convicción sobre lo que se pretende. Nosotros como agentes de desarrollo tenemos que desarrollar la capacidad de saber escuchar, saber dissentir, para influir positivamente en las diferentes agrupaciones de personas. Se trata, obviamente, de un proceso más lento, pero más sostenible.

Además, la ciudadanía en general se merece oportunidades en donde existen desafíos. Nos merecemos oportunidades, cada quien puede generarlas y aprovecharlas sobre todo.

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Remando contra la corriente



Figura 1: El productor campesino o sabe nada



Figura 2: La mujer campesina si sabe mucho



Figura 3: El técnico es dueño de la verdad y sabe todo



Figura 4: El técnico escucha a otros

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3. GOAL-DAAD presence in Cunducán, Tabasco, México

Geophysicist, María Elena Vargas Magaña Pemex, Schlumberger, Mexico, maelvama@gmail.com

The **UJAT Universidad Juárez Autónoma of Tabasco** hosted in its School of Basic Sciences the **1st KAAS-DAAD-UJAT Seminar** titled **"Geosciences for the Integral Development of the Country"** organized by DAAD Young Ambassador **Ph.D. Sonia Torres**. From October 6th to the 7th, 2016 over a hundred Geophysics' students attended this seminar where **DAAD Ex-Alumni** were invited to talk about their current work and share with the students the experience they have in their respective areas.

Among the eight lecturers **Ph.D. Silvia Domínguez Parra, Ph.D. Mariano Torres, Ph.D. René Alberto Dávila Porcel, B.Sc. Estefanny Dávalos Elizondo, B.A. José Luis Sarabia, Ph.D. Víctor Ávila** and **B.Sc. María Elena Vargas Magaña** and **Ph.D. Igor Ishi Rubio Cisneros** there were three **GOAL-DAAD Members** presenting the conferences titled:

"Impact of the Petroleum Industry Challenges in Current Mexico"

B.Sc. María Elena Vargas Magaña

Objective: Give the students an introduction about the challenges the country faces with the Energetic Reform issued in Mexico, encourage them to research about the areas the National Hydrocarbons Commission (CNH) is bidding, urge them to be more proactive in their self-taught development by taking advantage of all the free online available tools, for example free Geographic Information Systems (GIS) or geoscience software, languages courses, MOOC or Massive Open Online Courses focused on business, social media oriented towards all kinds of enterprises, etc.

"Underground Water a Key Resource for Sustainable Development"

Ph.D. René Alberto Dávila Porcel

Objective: Highlight the importance of underground water, outline Integrated Management of Water Resources (GIRH, as in Spanish, Gestión Integrada de los Recursos Hídricos), explain the reality in this matter in Mexico, show the opportunity areas in development countries and current projects being developed by the School of Civil Engineering of the Universidad Autónoma de Nuevo León (UANL).

"Available work force in geosciences: Extractivism, Remediation, Regeneration and Replication of Natural Systems"

Ph.D. Igor Ishi Rubio Cisneros

Objective: Distinguish the paths a geoscientist could adopt to develop professionally, try to vocationally guide the student about the type of work the geosciences professional develops, recommendation to the graduates to adopt a criteria to decide and select their professional future taking into account their immediate, local and domestic environment and finally reflect that in Mexico the new energy and labor structural reforms, the budget cuts to science, technology and innovation are additional subjects to consider for their future professional development.

Other relevant topic was the attitude a professional should have at work, thus, in this matter, the lecturers encouraged the Geophysics' students to challenge themselves to a higher standard of work, even though they are still studying, by starting to develop the most wanted competences by potential employers such as leadership, analytic skills, innovation, creativity, team work, communication skills, respect and so on.

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GOAL-DAAD presence in Cunducán, Tabasco, México



GOAL-DAAD Members present at the 1st KAAS-DAAD-UJAT Seminar titled “Geosciences for the Integral Development of the Country”. From left to right Ph.D. René Alberto Dávila Porcel, B.A. José Luis Sarabia, Ph.D. Mariano Torres, Ph.D. Igor Ishi Rubio Cisneros, Ph.D. Víctor Ávila, B.Sc. Estefanny Dávalos Elizondo, DAAD Young Ambassador Ph.D. Sonia Torres and B.Sc. María Elena Vargas Magaña.

4. New participants in the GOAL Workshop and Meeting - Colombia 2016

Isa Carla Osterkamp

Bióloga, Mestre em Ambiente e Desenvolvimento, parte experimental,
bolsa DAAD na Uni-Tübingen e Uni-Hohenheim (Stuttgart) em 2007
Doutoranda do Programa de Pós-Graduação em Ambiente e Desenvolvimento
da UNIVATES - Ciências Ambientais, conclusão em dezembro de 2016
(Sanduíche no Senckenberg Institut, Frankfurt nov 2015/ fev 2016)
Pesquisadora do Setor de Paleobotânica e Evolução de Biomas- UNIVATES



GERSON MANOEL MUNIZ DE MATOS

Geólogo, Trabajo actual: CPRM – Servicio Geológico de Brasil – Rio de Janeiro
Trabajo de Doctorado, Mineralogisch-Petrografisches Institut der Universität Heidelberg
Tesis, "Petrogenetische Entwicklung der Schichtgebundenen Au-Fuerenden der
Sulfidlagestätten Bico de Pedra, Minas Gerais, Brasilien."



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New GOAL's members

MARJORIE KAUFFMANN

She has a BSc. Degree in Forest Engineering from the Federal University of Santa Maria. and a MSc. Degree in Environment and Development from UNIVATES University Center. Between 2006-2008, she was exchange student at the Academic Exchange at Eberhard Karls Universität Tübingen – Germany. The thesis was about Charcoal fragments as evidence of wildfire frequency during Quaternary period of Araucarias Plateau, Rio Grande do Sul State, Brazil. In 2010-2015 she got a PhD in Geology and Natural Resources, University of Campinas (Unicamp) and in 2016 a Postdoctoral in Palaeobotany at UNIVATES University Center.

Currently she is working as an independent consultant in the areas of environmental licensing and national paleontological heritage protection.



NESTOR GERARDO MOLINAS VILLALBA

M. sc. agr. en Ciencias Agrarias en trópicos y subtrópicos. Orientación Desarrollo Rural.
Georg August Universität Göttingen, Rca. Federal de Alemania, octubre 1993 / mayo 1996.
Ingeniero Agrónomo. Facultad de Ingeniería Agronómica, Universidad Nacional de Asunción (UNA), Paraguay, 1981 a 1985. Docente de Grado y Postgrado de Facultad de Ciencias Agrarias (FCA), Universidad Nacional de Asunción(UNA). Coordinador y facilitador del Centro de Liderazgo en Agricultura de la Dirección de Extensión Universitaria de la FCA, UNA. Miembro Titular de la Asamblea Universitaria, Estamento No Docente de la Universidad Nacional de Asunción (UNA), por la Facultad de Ciencias Agrarias (FCA). Periodo 2014 / 2016.



5. In Memoriam

Nuestro colega CARLOS IGNACIO RAMÓN CENTURIÓN LÓPEZ falleció el 09 de febrero de 2016. Nació en la Asunción en el año 1946. Obtuvo la licenciatura en Ciencias Naturales orientación Química en el Instituto de Ciencias Básicas (actualmente Facultad de Ciencias Exactas y Naturales), Licenciado en Ciencias Químicas. Fue docente universitario, para varios Ministerios del Paraguay, como el Ministerio de Defensa, Ministerio de Agricultura y Ganadería, Gobernación del Departamento de Boquerón y Secretaría de Emergencia Nacional. Trabajó para el Proyecto Aguas para el Chaco, de la cooperación técnica Paraguayo- Alemana, con fondos del Instituto Federal de Geociencias y Recursos Naturales de Alemania (BGR), primero empezó como técnico y luego fue director paraguayo del mencionado proyecto. Tomó un curso de especialización e hizo sus prácticas en los laboratorios del Instituto Federal de Geociencias y Recursos Naturales de Alemania (BGR) en la década de los '90. Referente a nivel nacional de los temas relacionados al agua y en especial a las particularidades de las aguas en el Chaco paraguayo. Se unió a la GOAL en el año 2007.

De carácter jovial y bromista, serio para el trabajo y comprometido muy profundamente con la enseñanza. Siempre dispuesto a colaborar con las actividades de la GOAL.

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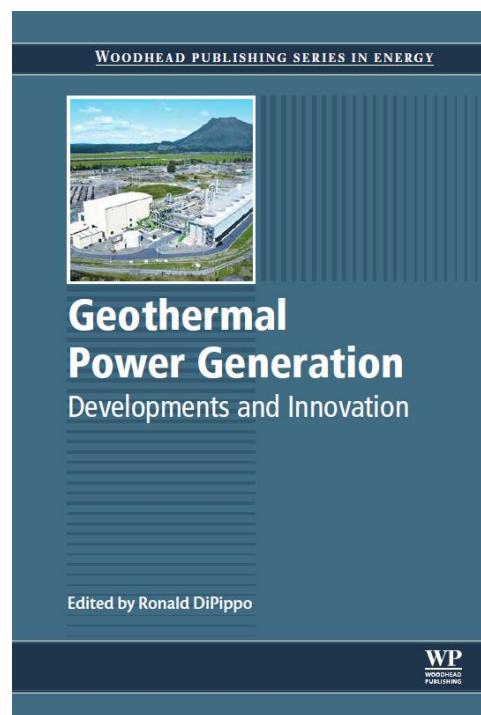
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Nuestros recuerdos a nuestro querido GOALista Carlos de Paraguay!!

6. Book announcement

An interesting chapter about Central and South America's potential for Geothermal Power Generation was written by our colleague Ing. Paul Moya, Instituto Costarricense de Electricidad - ICE, Costa Rica, in the book of Ronald DiPippo released on June 08, 2016.



**Central and South America:
significant but constrained
potential for geothermal power
generation**

P. Moya Rojas
West Japan Engineering Consultants, Inc. (West JEC)

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23.1 Central America

23.1.1 General information

The following Central American countries with geothermal potential will be studied in this chapter: Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and Panama. While Belize is a part of Central America, it has no geothermal resources. For context, the geographic and economic conditions of these countries are presented in Table 23.1.

Geothermal energy in Central America has been studied and developed for decades. These countries were able to cultivate their geothermal developments, taking advantage of soft loans from U.S. and Japanese banks to the countries (sovereign guarantees) when these banks routinely lent money for geothermal projects. Most recently, some Japanese banks are providing loans for these projects again, such as JICA funding for future geothermal developments in Costa Rica (Las Palmas 2, Boringuen 1 and 2),

Table 23.1 Selected data for geothermally active countries in Central America [1]

Country	Land area (km ²)	Population (2015)	GDP, 10 ⁹ US\$ (2014)	Installed electric power, GW (year)	Electricity consumed, GWh (2011)
Costa Rica	51,060	4,814,144	70.97	2,944 (2011)	8792
El Salvador	20,721	6,141,350	50.94	1,507 (2011)	5412
Guatemala	107,159	14,918,999	119.10	2,813 (2011)	8143
Honduras	111,890	8,746,673	39.08	1,815 (2011)	5091
Nicaragua	119,990	5,907,881	29.47	1,275 (2013)	2777
Panama	74,340	3,657,024	76.42	2,391 (2012)	6626

Geothermal Power Generation, http://dx.doi.org/10.1016/B978-0-08-100337-4.00023-1
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More information: <http://store.elsevier.com/Geothermal-Power-Generation/isbn-9780081003374/>

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7. International Scientific Events

8-15 May, 2017, GOAL workshop, The role of the Goesciences to the Society Development: A German-Latinamerican perspective, Monterrey, Mexico (Homepage under construction)

21-24 May, 2017, 6th Geological Conference of the Geological Society of Trinidad and Tobago, More information: More information: <http://www.thegtt.com/6th-geologicalconference/>

8 Aug.-1 Sept. 2017, XVI Colombian Geological Congress/Explorer's Symposium. Santa Marta, Colombia. More information: <http://sociedadcolombianadegeologia.org/congreso2017>

PATA DAYS 2017: 8th International Workshop on Paleoseismology, Active Tectonics and Archeoseismology, postponed to November 2017, New Zealand. More information: <http://paleoseismicity.org/8th-pata-days-in-new-zealand-will-be-postponed-to-november-2017>

Our homepage is under construction.
If you have any question or comments
about our Newsletter, please contact
Dr. Nury Morales-Simfors, nusi0453@gmail.com.

Reviewed by: Prof. Reinaldo García,
Regional Coordinator - GOAL, rgarcia1945@yahoo.es

