

# IngOG<sup>+</sup>

Engineers Without Borders  
Switzerland (IngOG+)

**Annual report 2019**



## Imprint

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# About IngOG+

"We support geographically, politically or out of poverty isolated and disadvantaged communities to meet their basic needs in a sustainable way."

Engineers without Borders Switzerland (IngOG+) is a non-governmental organization that searches for engineering solutions to humanitarian problems. Our goal is to improve the living conditions of communities disadvantaged by poverty, geographical or political isolation and lack of support. With intensive involvement of the local population, appropriate measures are developed for the communities. IngOG+ follows a holistic approach to problem solving, which ensures that the projects improve the living conditions of the affected people in a sustainable way.

Our fields of activity in Switzerland and abroad include direct involvement in the planning, execution and maintenance of infrastructure projects as well as the exchange of knowledge and the support of other organizations in specific engineering tasks.



Figure 1: Project assessment in Suswa, Kenya

# Projects

## Gradačac, Bosnia and Herzegovina (BIH001)

<b>Purpose</b>	<b>Construction of a social housing community for socially disadvantaged women</b>
<b>Location</b>	Gradačac, Bosnia and Herzegovina
<b>Since</b>	May 2016
<b>IngOG+ team</b>	Nora Mühlberger, Christian De Maddalena, Dominik Burkhart, Eric Carrera
<b>Architects team</b>	Nemanja Zimonjic, Ognjen Krašna, Celine Bessire, Matthias Winter, Lukas Burkhart

Together with Hazima Smailović, a refugee from Bosnia and Herzegovina, partner organizations in Switzerland and abroad as well as the local authorities of the municipality Gradačac, IngOG+ is committed to the establishment and operation of a social housing community for socially disadvantaged women in Bosnia and Herzegovina. The women are to live together in a shared flat and support each other in everyday life. A trained caregiver supports the residents in everyday life and regulates administrative tasks. IngOG+ supports Hazima in setting up the project, coordinates the involved actors and finances the construction of the building. The architectural design will be created by a group of architects from the TEN group in cooperation with a Serbian architect. The operation of the project is supported by the foundation NAS IZVOR, which was established in Bosnia. IngOG+ acts as the founder of this foundation and provides a large part of the foundation board.

In 2019 the development of the construction project was completed together with the architects and the necessary permits were obtained. A construction company was found and an offer was developed in close cooperation with them. The supporting foundation NAS IZVOR was established and notarised in Bosnia. We were able to establish valuable cooperation in Bosnia as well as in Switzerland and expand our network. On site we work together with the Bosnian women's organisation VIVE ZENE. They will train our caregivers and support us in the selection process of the residents and in negotiations with authorities. In Switzerland our project is accompanied by the Institute for Social Work of the University of Applied Sciences Northwestern Switzerland (FHNW). In this way, a great deal of specialist knowledge enters the



Figure 2: Project team and model of the house in Bosnia

project and we can create optimal conditions for a successful project. Around 75% of the project costs are currently covered.

A further fundraising wave is currently underway to cover the remaining funds. Construction is scheduled to start in early summer 2020.

# Projects

## Paraguay (PRY001)

<b>Purpose</b>	<b>Drinking water supply</b>
<b>Location</b>	Hugua Chini, Paraguay
<b>Since</b>	December 2015
<b>IngOG+ team</b>	Lukas Allemann, Carina Doll, Lukas Dössegger, Dorothee Kunz, Katharina Schulthess, Carmen Steinmann
<b>Team in Paraguay</b>	Ana Lucia Giménez, Federico Varas Lehner, Citnhia Fleitas

Hugua Chini was hit by severe flooding in spring 2019. At the beginning of the year a visit was planned, which unfortunately did not come about. The contact to the community is very difficult. Only in January 2020 our project coordinator was able to make another trip with representatives of the university. The population is still interested in a water supply, but at the moment, the implementation of a power line keeps the inhabitants busy. After it is finished, they will dedicate themselves to the water supply.

The cooperation with the Universidad Nacional de Asunción (UNA) is very pleasing. We could institutionalize the activities in an official declaration of intent between UNA and IngOG+. Since July, a larger project (aguaXcomrur) has been running with the aim of improving the water supply in the rural areas of Paraguay. In two locations communities are investigated and possible solutions are developed. Prototypes are then built and tested with local materials at the UNA before they are implemented in the field. Finally, it will be evaluated whether the users need the solution and are satisfied with it. We expect a time horizon of about 1.5 years.

The contribution of IngOG+ is on the one hand in a financial way and on the other hand in the form of technical support. We also provided the UNA with utensils for the analysis of microbial water quality. We provide technical support in the form of written and oral feedback on their reports.

To strengthen our collaboration, we are planning a video conference in March 2020 to motivate students to get involved with aguaXcomrur or to write a thesis with us. An online platform will ensure the exchange with the students. This way we can pass on our technical knowledge directly to the students of the UNA.



Figure 3: Analysis of microbial water quality

# Projects

## Nepal

<b>Purpose</b>	<b>Construction of earthquake-save school buildings</b>
<b>Location</b>	Sano Bhorle, Nepal
<b>Since</b>	October 2017
<b>IngOG+ team</b>	Christian De Maddalena

Numerous small primary schools, so-called "feeder schools", were destroyed by the earthquake in Nepal in April 2015 - although hardly any of them have been rebuilt so far. Feeder Schools are located in small, mostly very poor and inaccessible villages and serve to teach the smallest children for whom the long way to the next "real" school is too difficult. The schools are usually financed on a non-profit basis, whereby the small village communities can hardly exert any influence at the national level and thus do not receive any attention or funding when prioritising reconstruction in Nepal.

IngOG+ supports the NGO "Learning Planet" in adapting its modular school system to the needs of the feeder schools and making the building earthquake-proof. The aim of the project is to find a cheap and affordable solution for the reconstruction of the Feeder Schools at different locations. The construction of the first prototype in a small village called Sano Bhorle, north of Kathmandu, has recently been completed. Now it will be shown how well the prototype can be duplicated and used at different locations. If required IngOG+ will continue to support the project with technical know-how.



Figure 4: Construction of modular school systems in Sano Bhorle, Nepal

# Projects in Exploration Phase

## Nepal

<b>Purpose</b>	<b>Hospital extension for gynaecology and obstetrics</b>
<b>Location</b>	Ratnanagar, Nepal
<b>Since</b>	September 2019
<b>IngOG+ team</b>	Diego Sanchez, Andreas Wende
Hospital Limmattal team	Thomas Brack, Simone Kamm, Lorenzo Marazotta, Beat Hoststettler, Bernd Classen, Mathias Leopold

In the rural regions of southern Nepal, on the border with India, a large part of the population lives without access to medical care. The rapidly rising birth rate is already pushing the hospital to its limits. In order to counteract the negative effects and to specialize and equip the existing hospital in this area as well, the project Ratnanager "Hospital Expansion for Gynaecology and Obstetrics" was initiated by the association Spital Limmattal. The aim of the project is to create a competence centre for gynaecology and obstetrics for the existing hospital in Ratnanager.

IngOG+ accompanies the association Spital Limmattal since 2019 and will support the planning and construction, technically and professionally, as well as the financing of the project. Currently, the needs are being determined in a workshop procedure together with the local partners and doctors, the initial situation is being analysed, so that the planning process can be started afterwards. The aim is to complete the planning in 2020 and start construction in 2021.



Figure 5: Impressions from Ratnanager, Nepal (February 2020)

# Projects in Exploration Phase

## Kenya 001

<b>Purpose</b>	<b>Pier at Lake Victoria</b>
<b>Location</b>	Mbita, Kenya
<b>Since</b>	January 2019
<b>IngOG+ team</b>	Michael Meili, Marco Lolli, Cinzia Reihnard, Keith Wilson, Katharina Schulthess

The NGO Biovision contacted IngOG+ with a project idea in the Mbita region on Lake Victoria in Kenya. On the site of ICIPE, the only insect research institute in sub-Saharan Africa, there was a frequently used pier, which was used by the institute, local communities and NGOs, but which today only consists of rubble. This site is to be the starting point for the construction of a new, robust landing pier for fishermen and other users. From this pilot station, it is planned to develop a manual for the construction of such piers and to disseminate this manual in the surrounding communities and to support the construction if necessary.

Two team members traveled to Mbita, Kenya in the summer of 2019 for evaluation. During this trip, the population's need for piers was investigated. The construction of a road to Kisumu, the largest city in the region, has significantly changed the shipping traffic. First shipping companies had to close down, they could not compete with road transport. As a result, the potential demand of the population has largely disappeared. Nevertheless, the landing stage remains a need for the researchers of ICIPE and the local NGOs who are concerned with the prevention and treatment of sexually transmitted diseases such as HIV and basic health care. The needs of researchers and individual NGOs are currently being clarified in more detail. In the course of 2020, a decision will be made on whether and how the project will be continued.



Figure 6: old pier at lake Victoria nearby Mbita



# Projects in Exploration Phase

## Kenya 002

<b>Purpose</b>	<b>Drinking water connection for a boarding school in Kenya</b>
<b>Location</b>	Region of Suswa, Narok County, Kenya
<b>Since</b>	August 2019
<b>IngOG+ team</b>	Jean Randhahn, Janine Rusch (Project management)

Together with the Lions Club Münster-Landois and the Lions Club Thika Chania Falls, Massai parents have built a school with an attached boarding school. As semi-nomads, school children live together with their parents up to 30 kilometers away to find food for their herds. The transformation of Ilkeek Aare Primary School (IAPS) into a boarding school now allows the children to stay in school while their parents move on.

However, the local drinking water supply based on a rainwater collection system limits the operation of the boarding school as rainfall is decreasing and the system collects insufficient amounts of water. The aim of this project is to ensure a continuous water supply for the boarding school and, where possible and necessary, for the neighbouring community.

IngOG+ supports the association of Masai parents with engineering services for conception, planning and implementation. Within the framework of a variant study, different options are first of all examined, including the construction of a water pipe and the extension of the existing rainwater collection system. A visit to the school in February 2020 will enable the acquisition of necessary basic information and the involvement of the school and the local community.

The project is being carried out in cooperation with the Lions Club of Münster Landois (Germany) and Thika Chania Falls (Kenya). Our long-standing club sponsor Rapp AG, Basel, is supporting us in this project with its manpower and expertise.



Figure 7: Ilkeek Aare Primary School

# Closed Projects

## Nepal

<b>Purpose</b>	<b>Construction of a community centre for Paravati women's cooperative</b>
<b>Location</b>	Dhawa, Nepal
<b>Since</b>	June 2018
<b>IngOG+ team</b>	Christian De Maddalena, Emmanuelle Sallin, Max Kastinger

In cooperation with Architects Without Borders Sweden and architects of the design group Rangi Changi, IngOG+ was involved in a project to build a community center for the Parvati Women's Cooperative in the village of Dhawa in Nepal since 2018. The aim of the project was to create the basis for the further development of the cooperative by building an earthquake-proof community centre in Dhawa. Despite a promising start of the project and a good cooperation of the organisations in the project team, the project had to be stopped in summer 2019, as the needs of the local community had changed and communication could no longer be carried out on a trustworthy basis. Nevertheless, we have learned a lot from the experience and hopefully we can benefit from it in future projects.



Figure 8: Members of the Paravati women's cooperative in Dhawa

# Financial Report 2019

## Assets

By the end of 2019, we will have total assets of CHF 169'050.39, which will be divided between our three cash accounts at Postfinance, PayPal and the cash desk.

Assets	2018	2019
Liquidity cash accounts	183.00 CHF	183.00 CHF
Liquidity Postfinance	99'387.13 CHF	163'902.05 CHF
Liquidity PayPal	3'465.61 CHF	4'965.34 CHF
<b>Total Assets</b>	<b>103'035.74 CHF</b>	<b>169'050.39 CHF</b>

Part of the expenses for the evaluation mission for the KEN001 project in 2019 were not paid until 2020. Therefore they appear as liabilities. In addition, membership fees for 2020 were already paid at the end of the year.

## Passivs

Expenses not yet paid from 2019	4'223.20 CHF
Already paid membership fees for the year 2020	656.05 CHF

## Income

The income consists of donations and membership fees. 16'400 CHF have been received as unspecific donations, of which about 55'750 CHF are specifically for Bosnia and almost 8'000 CHF as membership fees. Our largest contributors with 1'000 CHF and more were:

- Baslerinnen für Bosnierinnen
- Rapp Management AG
- Blue Sox Club
- Cassina+Partner AG
- Mobimo Management AG
- Partner Reinsurance Europe SE
- Fondazione Dr. Martin O. Winterhalter
- Diverse Privatpersonen

Income	2018	2019
Donations		
Unspecific donations	32'230.18 CHF	16'400.00 CHF
Donations for project BIH001	44'310.00 CHF	55'746.44 CHF
Donations for project LBN001	300.00 CHF	-
Membership fees	6'063.37 CHF	7'910.81 CHF
10 year anniversary IngOG+	7'796.00 CHF	-
<b>Total income</b>	<b>90'699.55 CHF</b>	<b>80'057.25 CHF</b>

# Financial Report 2019

## Expenses

The expenses in 2019 are as follows:

Expenses	2018	2019
Project expenses		
Project expenses BIH001	3'664.45 CHF	8'733.18 CHF
Project expenses PRY001	6'005.81 CHF	2'434.77 CHF
Expenses for internal activities, projects	543.60 CHF	836.95 CHF
Evaluation trip Kenya	-	4'673.20 CHF
Administrative costs	2'880.29 CHF	1'393.75 CHF
<b>Total expenses</b>	<b>16'790.50 CHF</b>	<b>18'071.85 CHF</b>

## Return

In summary, a profit of CHF 62'641.45 was recorded.

Return / Loss	2018	2019
<b>Total Income</b>	<b>90'699.55 CHF</b>	<b>80'057.25 CHF</b>
<b>Total Expenses</b>	<b>16'790.50 CHF</b>	<b>18'071.85 CHF</b>
<b>Total Return</b>	<b>73'909.05 CHF</b>	<b>61'985.40 CHF</b>

## Return distribution / starting balances

In accordance with the board resolution of 9 January 2019, the 2018 profit will be used as follows:

The **project in Gradačac (BIH001)** receives the project-specific donations (55'746.44 CHF), 18'500 CHF of the non-specific donations in 2019 plus the annual RAPP donation in 2019 (transferred in January 2020, attributed to the project in the 2020 accounts)

BIH Starting balance 2019	69'360.97 CHF
BIH Expenses	- 8'733.18 CHF
BIH Return	+ 55'746.44 CHF
BIH grand general account	+ 18'500.00 CHF
<b>BIH Starting balance 2020</b>	<b>134'874.23 CHF</b>

# Financial Report 2019

- The **Paraguay project** continues to draw from its reserves

PGY Starting balance 2019	9'357.83 CHF
PGY Expenses	- 2'434.77 CHF

**PGY Starting balance 2020**                      **6'923.06 CHF**

- Overview of **uncommitted reserves**

<b>Starting balance 2019</b>	<b>23'466.94 CHF</b>
Membership fees	+ 7'910.81 CHF
Unspecific donations	+ 16'400.00 CHF
Administrative costs	- 1'393.75 CHF
Internal projects	- 836.95 CHF
Evaluation trips	- 4'673.20 CHF
Grant BIH	- 18'500.00 CHF

**Starting balance 2020**                      **22'373.85 CHF**

The amount of around CHF 22'000 as an uncommitted reserve meets the expected target. The general rules for project financing assume that a maximum of 10% loss per project must be able to be covered by the reserve. Any loss exceeding this limit must initiate a further round of fundraising in the project to cover these costs.

The allocations (opening balance sheets and liabilities) correspond to the total assets.

	<b>2019</b>	<b>2020</b>
Starting balance BIH001	47'013.26 CHF	134'874.23 CHF
Starting balance PRY001	9'357.83 CHF	6'923.06 CHF
Starting balance uncommitted reserves	23'466.94 CHF	22'373.85 CHF
Passivs	850.00 CHF	4'879.25 CHF
<b>Total Assets</b>	<b>103'035.74 CHF</b>	<b>169'050.39 CHF</b>

## Organizational Changes

A further payment channel will be added in 2019: Twint. This app-based payment method is especially suitable for donations, for example at an event like the Christmas market. By means of a QR Code money can be donated to IngOG+ within a short time. The donations are anonymous, so this solution is not suitable for paying membership fees.



# Events 2019

Also this year we can look back on several great events for our members and other interested persons.

In summer IngOG+ tried its hand at raft building on the shore of the Greifensee. The participants constructed three rafts from different materials - canisters, PET bottles and balloons. At the end of the day all fins swam on the water together with their farmers. In autumn the IngOG+ team hiked to Braunwald and enjoyed a wonderful high altitude hike to Rietstöckli.



Figure 9: Raft building summer 2019

In December IngOG+ had the opportunity to present the association at the LIMES talk at ETH Zurich (LIMES: Ladies In Mechanical and Electrical Studies, Commission of the AMIV). Furthermore, IngOG+, together with the ICRC, was a guest at the Young Swiss Engineers (YSE) event at the ETH Zurich to present and discuss engineering work in development cooperation. In addition, a lunchtime seminar was held for students of civil engineering at the ETH. Furthermore, IngOG+ was invited for the first time to the Blue Sox Club in Zurich for a workshop on women's housing (based on our project in Bosnia), to the Step Into Action event in Berne for schoolchildren and students and to the first Aqua Pura Roundtable.

During the Christmas season Ingog+ also showed up for a weekend at the Niederdorf Christmas market. The stand in the Rosenhof offered visitors the opportunity to learn more about the association's activities and to get hold of home-made ceramic tableware, home-baked Bosnian specialties and other small Christmas presents in return for a donation.

The IngOG+ year came to a close at the annual Christmas dinner in the Quartierhaus Kreis 6. The evening was dedicated to the motto "RED! In a festive atmosphere we cooked, ate, drank and played together.

# Acknowledgements

First and foremost a big thank you to all our energetic and motivated **active members** - without them nothing would be possible. IngOG+ is still a purely voluntary organization, so almost 100% of the donations and contributions go to the projects. This is nice, but it is only possible because of the valuable commitment of the active members.

A huge thank you goes out to all **donors** who made large financial contributions and thus made our projects possible last year.

A special thanks goes here:

Verein Baslerinnen für Bosnierinnen

Partner Re

RAPP

Mobimo Management AG

Cassina+Partner AG

Blue Sox Club

Hunziker Betatech AG

Fondazione Dr. Martin Othmar Winterhalter

Caviezel Partner AG

We would also like to thank the numerous **passive members and patrons** who, with their regular financial contributions, lay the foundation of our association's activities.

Special thanks go to RAPP, who support our projects with know-how and experience. This cooperation and exchange is very valuable for us.

We would like to thank Young Swiss Engineers, LIMES, Blue Sox Club, Step Into Action and Aqua Pura for the great events we were able to participate in.

On behalf of the entire board,

Katharina Schulthess

President

Zurich, 09. March 2020

