

CAPACITY BUILDING MISSION TO GERMANY



CAPACITY DEVELOPMENT
19.02.08 - 23.02.08
PREPARED BY DEBREWOK MULUGETA

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1. INTRODUCTION

The University Capacity Building Program (UCBP) engages several relevant parties in the process of designing and constructing 13 universities throughout Ethiopia. All of them were invited to visit the **Trade Fair BauTec 2008** in Berlin, Germany, and many followed this invitation: three construction management companies, seven architects & engineers, six general contractors, two representatives from the Ministry of Works and Urban Development (MoWUD), one representative from the Addis Ababa Housing Development Project Office (AAHDPO) and two from the Ethiopian Contractors Association. Including six GTZ representatives, 27 participants attended the Trade Fair for Building and Construction Technology. Part of this capacity building mission to Germany was to meet various German construction companies, machine suppliers, architecture and contractors associations, and other bodies related to the construction field.

The main objective of the visit was to introduce the participants to latest agendas of the construction sector, provide them with information from experts and advisors' of the building industry and congregate with various construction related German companies and associations.

The trip can be a doorway and an opportunity for better communication and cooperation between the construction sectors of both countries. An increased familiarization with modern construction techniques, materials and equipments is fundamental for the growth of the construction industry of Ethiopia.

2. LIST OF PARTICIPANTS

No.	Name	Company
1	Ato Tesfaye Yalew	Ministry of Works & Urban Development (MoWUD)
2	Ato Amare Asgedom	Ministry of Works & Urban Development (MoWUD)
3	W/rt Tsedale Mamo	Addis Ababa Housing Development Project Office
4	Ato Demissew Abate	Ethiopian Contractors Association
5	Ato Melaku Tadesse	Ethiopian Contractors Association
6	Ato Girma Kebede	Demera Engineering
7	Ato Abrham Demissie	Ziquala Construction
8	Ato Bekalu Minda	Orbit Engineering
9	Ato Daniel Tadesse	Data Construction
10	Ato Elias Mamo	Macro General Contractors
11	Ato Jibril Geresu	Jibril Geresu Construction
12	Ato Ephrem Tesfaye	Afri Consult
13	Ato Amanuel Teshome	Bet Consulting Architects
14	Ato Dawit Tamirat	Bet Consulting Architects
15	Ato Daniel Assefa	Daniel Assefa
16	Ato Samuel Kassahu	Daniel Assefa
17	Ato Tewodros Tekle	T & E ABYSINIA Trading
18	Ato Dejene Mulugeta	Rainbow Architects
19	Ato Mesfin Bereded	OTT
20	Ato Dawit Legesse	Dawit Legesse Arch & Eng.
21	Ato Markos Fikdadu	Nice Engineering
22	Ato Esayas Abebe	GTZ – IS
23	Ato Addisalem Nega	GTZ – IS
24	W/ro Tigist Tsega	GTZ – IS
25	Mrs. Renate Schindlbeck	GTZ – IS
26	Mr. Martin Hintereder	GTZ – IS
27	W/rt Debrework Mulugeta	GTZ – IS

3. VISITS

3.1 BAUTEC

For two days, the Ethiopian General Contractors, Architects & Engineers, Construction Management Consultants and governmental officials have explored the Bautec 2008 platform for the manufactures of construction machinery, equipment, up-to-date project management, design software and other products especially in the sectors of services for the construction sector. The participants used the opportunity to meet experts and receive information on construction techniques presented by 780 exhibitors from 18 countries. Through the visit to the stands, adequate information on the specified industry has been obtained. This enabled participants to be aware of the construction process in the further developed countries in regards to construction. Lectures, digital presentations, explanations, films and physical displays of products were methods used to show the construction machineries, construction site equipments, building materials, prefabricated construction systems, tools, software and much more products in the construction field.



Participants at the Trade Fair

The trade fair took place from 19th – 23rd February 2008 at the exhibition space in Berlin and has presented itself as one of the principal building industry fairs in Europe. Bringing participants from various parts of the world, exhaustive construction industry coverage was found.



Architect & Engineers at the Trade Fair

3.2 VISIT TO A CONSTRUCTION MACHINERY SUPPLIER (ZEPPELIN BERLIN)



Participants at Zeppelin - Berlin

The General Contractors visited one of the biggest construction equipment suppliers (Zeppelin) in Germany. Zeppelin representative Mr. Burkhardt Meyer gave detailed explanations on the company's profile as well as on working procedures. Used machines like excavators, forklifts, bulldozers, compactors, wheel loaders, graders and other machines are available for sale. Zeppelin is also leasing and renting machines that are available in their stock.

3.3 GERMAN CONSTRUCTION SITES

3.3.1 ROAD & CANAL CONSTRUCTION (STRABAG)

On the 21.02.08, a visit to a construction site where Strabag is engaged in road and canal construction was made. Mr Eberhard Jacobs facilitated the visit. An explanation and discussion on tunnel (subway) construction took place. The explanation covered the technical and the management aspects of the project. Visitors are enabled to observe practical methods of drilling channel systems more than 100 meters through the ground with a tolerance of few millimetres. Participants are enabled to observe maximum work out put with minimum machine and manpower deployment.

3.3.2 UNDERGROUND RAILWAY CONSTRUCTION (HOCHTIEF AG & MAX BOEGL)

The two construction companies HochTief and Max-Boegl are working in a joint venture with a total project value of 30 million Euro, where one company has more engineering experts and the other more specific machinery. The participants observed how to organize and construct difficult concrete works in a very complex situation with particular engineering solutions. Mr. Peter Klein, Project Manger of the underground railway construction site from the Bundesbaubehörde gave an explanation about the concrete construction which runs a long distance from Brandenburger Gate to Alexanderplatz in the center of Berlin.

3.3.3 MIXED PURPOSE BUILDING CONSTRUCTION (ALPINE)

General Contractors made a visit to a German construction site at Alexanderplatz where the general contract Alpine is constructing a huge shopping mall. The client Hines Immobilien GmbH is constructing on an area of 25,000 m² and with turnkey cost of 80 million Euro. DOKA is a supplier for huge and complex formwork solutions and act as sub contractor for this particular site. DOKA is planning and executing all formwork procedures under the supervision of Alpine. This collaboration of specific engineering knowledge enables short construction period of 12 months.



Mr. Peter Klein – Bundesbauböerde: Explaining to the participants



Mr. Westermann – Alpine: with the participants on site

3.4 ETHIOPIAN EMBASSY IN BERLIN

The 27-member delegation, which was for a one week trip to Germany made an official visit to the Ethiopian Embassy in Berlin on Wednesday the 20th of February 2008. His Excellency Ambassador Kassahun Ayele, the Ethiopian Ambassador to Germany welcomed the mission. The ambassador presented the Embassy's staff members to the delegation and participants as well presented themselves and the companies they are representing.

On his speech the Ambassador said the two countries (Ethiopia and Germany) have a long standing relationship. He also admired interest of so many German companies who are so far engaged in the different industries in Ethiopia and other German companies who are also showing growing interest to invest in Ethiopia.

The discussion focused mainly on:

The Ethio-German bilateral cooperation, political and economic ties of the two countries and what should be done to attract, encourage and establish the link between the Ethiopian and German investors in the field of construction.

He also mentioned that the embassy is ready to provide necessary support to the Ethiopian Construction Contractors Association. His Excellency expressed his satisfaction to see such a big group coming to Germany mainly to take part in the Bautec and exchange experiences with Germany companies working in the construction and associated fields. He underlined such a mission should be further organized and also expressed his gratitude to GTZ for organizing such a trip.



Participants at the Ethiopian Embassy - Berlin

3.5 CONSTRUCTION MANAGEMENT COMPANY (BEOS)

For the last 15 years BEOS, construction management company gives professional service on feasibility study and project correspondence with private investors in Germany. The idea of project management started to streamline complicated projects on behalf clients. This company offers service on technical & mercantile project management.

SERVICES OF THE COMPANY:

- On behalf of the client the consultants will make project feasibility study, design management and construction management.
- Determination of data regarding plot that the client wants to buy, estimating cost of the project, calculating overhead costs and (managing building permit process).



Mr. F. Schmidt - Presenting



Participants following the presentation

3.6 GERMAN CONSTRUCTION INDUSTRY FEDERATION

The main aim to visit the German construction industry federation was to establish a strong and functional relation with the Ethiopian contractors association and to develop cooperation in the field of construction industry and capacity building.

The Ethiopian Construction Contractors Association members have exchanged experience and visited the vocational training centers in Brandenburg which the federation trains skilled workers in different trades for the construction industry in cooperation with local authorities and the government.



Management of the training center presenting for Ethiopian delegates

Mr. Kehlenbach, the director of the overseas division and international relation of the federation as well as the management of the training institute presented briefly about the federation, as well as the training institutes respectively.

Mr. Kehlenbach explains his keen interest to advise the Ethiopian members how to develop a strategic partnership between the two associations and the possibilities how to work together in different issues. These includes how to organize a training center similar to what has been visited in Germany and a joint venture options between Ethiopian and German companies in the construction industry and equipment rental services. The Ethiopian delegation explains also the problems they face to establish a reliable partner and association but agreed to fulfill the advices of the German counter part.

The Ethiopian association will intensively follow up the advice of the German counter parts and work on the issues which will be a base of the next meeting. After having intensive discussions, it is agreed to meet for further discussion.



Participants at the training center

3.7 VOCATIONAL TRAINING INSTITUTE

The institute trains professional handicraft on a dual education system. Trainees spent three years in their respective companies which is interrupted for 45 weeks with theoretical trainings at colleges and 39 weeks with practical trainings. The institute has 254 pedagogical staff members with high professional, systematic, personal and social competences of pedagogy. The institute trains 2700 handicraft students per year and other trainees from different countries.

Mr. Waler Jahn and Mr. Werner Lange, training director explained to the Ethiopian delegation the organization concept and strategy of the institute.

Field of business of the Institute are the following areas:

- Practical Training
- Further Education & Qualification
- Educational Service to Foreign Countries
- Preparation for Professional Training

Practical professional training and further education in all professional fields like on:

- Tiling
- Metal works
- Wood Construction
- Restoration
- Block works
- Concrete & Reinforced Concrete, etc

The training center generates income from the monthly contribution of the members (contractors of each trade) and fees for additional and specific trainings to other non members within and out side the country. The visit to the vocational institute was a big impression for the participants and even convinced them to establish such an institute in Ethiopia, which will be one step forward to improve quality on site.



Brick Work



Tiling

3.8 GERMAN FEDERAL CHAMBER OF ARCHITECTS (BERLIN)

The German Federal Chamber of Architects in Berlin is an umbrella organization of the Architects Chambers of the 16 German States. The Federal Chamber represents nationally and internationally the interest of more than 118,000 working construction architects, landscape architects, interior designers and urban planners.



Participants at Federal Chamber of Architects - Berlin

Some of the main duties and responsibilities of the Federal Chamber of German Architects are:

- To maintain and improve the economic and legal conditions of professional education.
- To promote the cooperation and regular exchange of experience among architects chambers of the country.
- To strengthen the consciousness of architectural culture and the built environment.
- Customer protection

In cooperation with the State Minister at the Federal Chancellery for Media and Cultural Affairs the BKA rewards every year an architectural award.

On an international level, the Federal Chamber of German Architects represents the interest of German architects at the “Union Internationale des Architectes” (UIA).

The Federal Chamber has founded the “Network for Architectural Export” (NAX) in 2002. It receives funding solely from membership dues and sponsorship donations. The NAX supports the work of architect, engineers and urban planners on three levels:

- NAX ties the international activities of architects and helps establishing contacts between German and foreign colleagues, developers and investors.
- NAX publicizes information on important competitions and current developments in foreign commerce.
- NAX promotes the top-quality of German architects.

Ways how to establish relationship between the German and Ethiopian Architects has been discussed.

3.9 BERLIN CHAMBER OF ARCHITECTS

The Berlin Chamber of Architects is a public law corporation based on the law Architects and Engineers which regulates the conditions of professional work and protection of the title “Architect” in the state of Berlin. Some of the main duties of the Berlin Chamber of Architects are:

- Issuing license for architects, landscape architects, interior architects and urban planners
- Processing registration
- Designing curriculum and training in collaboration with universities
- Regulating fees



Participants at Berlin Chambers of Architects



Member of the board – Berlin Chambers of Architects

The admission to a German Chamber of Architects is required to be allowed to practice the professions of architect, interior designer, landscape architect and town planner in Germany

In Berlin about 7,000 architects, landscape architects, interior architects and urban planners are registered in the list of architects in Berlin as professional individuals. (Approx. 90% are architect)

Fees for the professional work are regulated in the “Fees for architects and engineers” (HOAI). This covers most regular services, in particular areas where the fees depend on the degree of difficulty and the building costs (so-called chargeable costs) and are shown in fees tables.

The continuing professional Development is considered essential for architects to keep up to date with new technologies or new approaches to different aspects of the profession. Besides private organizations the Architects’ Chambers of each federal state is one of the main organizers of courses, seminars, congresses, etc.

3.10 GERMAN DESIGN & ARCHITECTURAL OFFICE

The Manager of “zanderroth Architekten” presented the work method of a German architecture office. The company handles projects in more or less similar manner to their Ethiopian counterparts. Except they study a given project in a more depth by constructing working models and so on. This very much attributed to the established high standard of constancy.



Presentation model of the project

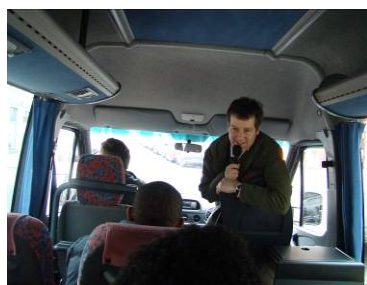


Participants at the consultant's office

Furthermore this firm choreographs projects (housing) by designing proposal packages for individuals to own flats and collectively own the building. This arrangement reduces the cost of the project since it does not require additional real-estate companies. It reduces the cost for the individual clients and creates job opportunity for the consultant as well.

3.11 TOUR ON URBAN DEVELOPMENT AND ARCHITECTURE IN BERLIN

During a bus tour and the visit of the city model the participants got an introduction about the urban development in Berlin during the last century.



Architectural Tour Operator



City model - Berlin



Participants observing city model - Berlin

Different planning and construction of estates marked structural changes in housing concept in Berlin, which were developed under the specific political and social conditions of this 20th century.

Most of the housing estates were constructed by trade unions, cooperatives and municipal building companies.

The “Siemensstadt” (build 1929-1934) are to be admitted to the UNESCO World Heritage List.

3.12 THE NEW GERMAN CHANCELLERY (BUNDESKANZLERSAMT)

The hand over of the new chancellery on 2nd May 2001 followed by the first meeting of the government marked the end of the process of moving from Bonn to Berlin.

Axel Schultes and Charlotte Frank, two Berlin architects, won the first prize in the architectural design competitions.

The new Chancellery consists of a central executive building, two administrative buildings, as well expanses of garden and parkland on either side of the river Spree.

On its eastern side the executive building opens onto the “Courtyard of Honor” decorated by steel sculpture “Berlin” by Eduardo Chillida. Guest of state is met here before entering the large foyer.



Participants at the **bundeskanzlersamt**



Conference Room - Bundeskanzlersamt

It was also possible to visit the German Chancellors' Office. The Chancellor has an own office at her disposal. The duties of this office are to organize personal interviews and appointments for the Chancellor.



Participants looking photos of former chancellors

3.13 CITY TOUR

The guided tours offered to the participants an insight into famous, historical and old well known architectural works and other remarkable highlights in the city of Berlin. The city tour included visit to:

- Berlin's parliamentary quarter (Reichstag, and the three other buildings, the Jakob Kaiser, the Paul Löbe and Marie-Elizabeth Lüders). All the four buildings are linked together with a system of tunnels. The building design is made by a British architect, Lord Norman Foster. These buildings are characterized by their transparency created by large utilization of glass and light steel formwork.



The Reichstag



The glass dome on the roof of the Reichstag

The Reichstag is established as the original parliament of the German Empire. Opened in 1894 and housed the Reichstag until 1933 till it was on fire. It is dedicated to "DEM DEUTSCHEN VOLKE" meaning, "TO THE GERMAN PEOPLE". After the reconstruction, the official German reunification ceremony also took place in this building.

Right on the border between East and West Berlin at Pariser Platz, the Brandenburger Gate is erected. The gate symbolizes Germany's division. But, since the fall of the wall, it has become the symbol of a reunified Berlin. Located at the end of Unter den Linden, 60m tall gate was part of a wall surrounding the city and was the main entrance to the city. It is one of Berlin's Tourist attractions.



Participants at Brandenburger Gate
Separation between East and West Berlin

4. COMMENTS AND RECOMMENDATIONS OF PARTICIPANTS

During the debriefing and commenting meeting held in Addis Ababa on Monday the 10th of March, 2008 participants made the following comments:

- This trip is better organized than the previous trade fair.
- Time was short to cover the agenda.
- Good experience exchange has been obtained through this mission.
- How company representatives are organized and manage projects is a lesson learned and is binding to implement it to our project management processes.
- It would be best if a common agenda is arranged for General Contractors, Architects & Engineers and Construction Management Consultants so that everybody can take part in the entire agenda.
- There were not enough construction management tools at the trade fair.
- By visiting the German construction companies, construction sites, trade fair participants have the exposure to high tech in the construction industry.
- Presentation by German Construction Management Consultant (BIOS) was good and learned a lot out of it.
- The training center which is the foundation for construction quality in Germany is one of the impressing places similar center must be established in our country.
- Handling huge construction sites with minimized labor and machine is impressive.
- Participants observed the big gap between the Ethiopian and German construction sties. However it is not easy to bring what has been experienced to our context. Visiting attainable areas would be of great importance.
- Urban development tour was impressive
- Being in Germany the land of Mercedes is by itself is a symbol of quality.
- Tunnel construction is very impressive as participants are enabled to observe practical methods of drilling channel systems more than 100 meters through the ground.
- We should implement easy tools in practical training that make quality achievable.
- It would be more helpful to organize for national professionals to practice in corresponding German firms for a brief period to exchange technology, practice and experience in the areas of project management, design process, construction management, etc.

Participants recommended that such a mission should be furtherer organized as it is a way to expose partakers to modern technology, create the prospect to examine and share experiences on latest construction machineries, equipments, software and other related issues. Capacity development and skill upgrading should be also the focal points in order to develop the construction industry in the country.

5. TIME SCHEDULE

1. Day: **Monday, 18.02.08** Flight Addis Ababa -> Berlin

16:00 pm Meeting point: Brandenburger Tor, Restaurant Tucher Theodor
Tucher Speisekabinett

Pariser Platz 6a

10117 Berlin; Tel: 030 / 22 48 94 64

2. Day: **Tuesday, 19.02.08**

08:30 Bus starts from hotels

09:00 – 17:00 Visit BauTec 2008

Location BauTec

16:30 Departure from BauTec to hotels, meeting point main entrance

19:00 Common dinner at the restaurant 'Die Nolle'

Location: in the underground arches of the S-Bahn / U-Bahn
station 'Friedrichstrasse' Speech – GTZ Representative

3. Day: **Wednesday, 20.02.08**

for A&E:

08.:30 Departure from hotels

09:00 Visit BauTec 2008

11:00 Meeting point: ORCA exhibitioner stand

Orca AVA-Software Presentation

12:00 BFZ: Education Systems (W. Jahn)

14:00 Departure from the BauTec, meeting point main entrance

for GC:

8:30 Departure from the hotel

10:00 Visit of the MVS ZEPPELIN park for used construction machinery

Zeppelinring 23-25, 15749 Mittenwalde OT Schenkendorf

Mr. Riske / Mr. Maier: 03375 / 9034-0 or 03375 / 524668

13:00 Departure from Schenkendorf

14:30 GC: STRABAG: Project instruction on site / site guidance for a ground engineering project: channel systems

Mr. Asta / Mr. Jacobs – 030 / 75477 – 0

Marktstrasse 14 / Berlin Mitte

16:00 Departure from site

17:00 for all: A&E and GC

Visit to the Ethiopian Embassy in Berlin

Boothstrasse 20 a

12207 Berlin

18:30 Return from the embassy to the hotel

4. Day: Thursday, 21.02.08**for all: A&E and GC**

- 8:30 Departure from the hotel
- 9:00 **Site visit building construction: eng. & construction**
GC: Site visit underground railway station construction
 Kanzlerlinie: Pariserplatz 4a / Berlin Mitte (Bundesbaubehorde)
 Hr. Klein: 030 / 861 57 47
- 11:00 **Visit to Construction Management Company**
 Issue: feasibility study / project correspondence with private investors
 Mr. F.Schmitt; BEOS Project Management GmbH
 Burgstrasse 27, 10178 Berlin
 Tel: 030 / 59 000 21 – 0

for A&E:

- 14:00 – 15:00 **Visit the Federation Chamber of the architects**
 Askanischer Platz / Berlin Kreuzberg
 Mrs. T. Waldmann: 030 / 26394440
- 15:30 – 16:30 **Visit the Berlin Chamber of Architects**
 Karl-Marx-Allee / Berlin Friedrichshain
 Mr. K. Wichers: 030 / 61622990
- 17:30 Returnn to the hotel

for GC;

- 13:30 **Visit of a construction site of a shopping mall**
 ALPINE Construction: Mr. Westermann 0172 / 8628876
- 15:00 open afternoon

5. Day: Friday, 22.02.08**for A&E:**

- 9:00 Departure from the hotel
- 09:15 **A&E: Tour for Architects & Engineers visit Architecture and urban developments**
- 15:00 **Visit of German Design & Architectural Office**

for GC:

- 7:00 Departure from the hotels
- 09:00 **Meeting with the German Construction Industry,**
Visit of a German trainings centre
- 14:30 Departure from Brandenburg
- 15:00 **Visit of a German construction material market**

6. Day: Saturday, 23.02.08

9:00 Departure from the hotels

9:30 Security check at the Reichstag

10:00 - 12.30 Guided tour Reichstag and the surrounding (Brandenburg Gate, Embassies, DZ Bank)

13:00 Guided tour in Bundeskanzleramt (house of the prime minister)

14:30 – 16:00 Guided bus tour in the centre of Berlin

7. Day: Sunday, 24.02.08 Flight Berlin -> Addis Ababa