

DES 11

REPUBLIC OF THE SUDAN - ADMINISTRATIVE ARRANGEMENTS FOR A
TECHNICAL EXPERT - GROUNDWATER DEPARTMENT ADVISER

4 JAN 1973 - 23 JULY 1974

[4 STRICTLY CONFIDENTIAL]
COLWL MAR 2015

PLEASE RETAIN
ORIGINAL ORDER

UN ARCHIVES

SERIES S-1906
BOX 78
FILE 6
ACC. # TE 432/21

Eckhard H. Zander
Haus Hellbrunn Top 19
A-5301 Eugendorf 32/Salzburg
Austria

RECORDS CONTROL

AUG 1 1974

Mr. Igor Radovic
Chief, Africa Branch
Physical Resources Dept.
Office of Technical Cooperation
United Nations
New York, N.Y. 10017
U. S. A.

ACTION
PERSONNEL RECORDS UNIT
ROOM 345 - EXT. 2058
TO: *Radovic*
H. Zander 30/7/74
JUL 30 1974
INITIALS *R.F.*

RECEIVED

30 JUL 1974

PR/SECTION FOR AFRICA/CTC

23 July 1974

TE 432/21 Sudan (3-1)

Dear Mr. Radovic:

I just received your letter of 15 July '74, forwarded to Austria. I was quite embarrassed to note that you did not refer to my letter of 8 July, and to my cable of 5 July, concerning the assignment at Quetta, job PAK-150-101-x, for which I had agreed to be available. I was also informed by the German National Committee for the UN that they had nominated me for the job to TARS, after the former candidate selected, Mr. Stapleton I believe, was not any more available.

The above development does not, however, correspond with your statement at the end of your letter that there was no assignment available at the moment. Kindly let me know as early as possible about my chances for the Pakistan job, preferably by cable or letter before the 31 July '74.

Finally, I would appreciate to learn on the Kenya job the latest development. We had discussed this matter also at New York during my visit.

As indicated in my letter of 8 July, I would appreciate if UN could send me on a short mission until I would assume duties at Pakistan or Kenya, provided I would be selected for either post.

I greatly appreciate your continuous help in the above matter. Please forward all correspondence to my address in Austria as above.

Sincerely yours,

Eckhard H. Zander
Eckhard H. Zander

ORIGINAL DIRECT

V. Palagin / js *V. Palagin*
cc. Mr. M.E. Doerner
Mr. A.I. Mileschin

RECORDS CONTROL

JUL 22 1974

TE 432/21 Sudan (3-1)

TEU 74 - Zander, E.

SEP 1974

15 July 1974

Dear Mr. Zander,

This is in reply to your letter of 27 June 1974. We have been in touch with the Administrative Section of OTC and Mr. A. Mileschin of TARS.

The Administrative Section wrote to you on 11 July 1974 with details on the points raised.

As for a new assignment, this has been discussed both with TARS and the Substantive Office and although there is no new assignment at this moment, we will be in touch as soon as something develops.

Sincerely Yours,

Igor D. Radovic, Chief
Physical Resources Section, Africa Branch
Office of Technical Co-operation

Mr. Eckard H. Zander
c/o Mrs C. Becker
Unter den Weinbergen 7
343 Witzzenhausen
West Germany

Eckhard H. Zander
Haus Hellbrunn Top 19
A-5301 EUGENDORF 32/Salzburg
Austria

RECORDS CONTROL

JUL 19 1974

RECEIVED

16 JUL 1974

PR/SECTION FOR AFRICA/OTC

SUD 168 1001

TE 432/21 SUDAN (3-1)

Mr. Igor Radovic
Chief, Africa Branch
Physical Resources Dept.
Office of Technical Cooperation
United Nations
New York, N. Y. 10017 , U. S. A.

8 July 1974

Dear Mr. Radovic:

As indicated in my cable of 5 July, which I sent after talking to Mr. Dimock by phone, I have decided to be available for the job in Pakistan after long and thorough consideration.

It is the work there that interests me most, and after having worked with UN. for 5 years, there are strong reasons for a continuation.

I kindly request you to do all that is in your power to receive an early statement from the Pakistan Government as to whether my candidature is finally accepted. I am holding another offer back as long as possible, but need your help to shorten the interval of waiting.

I would also very much appreciate it if UN could send me on a short mission to cover the time until assuming duties in Pakistan. This would also help me to earn some money. Your kind help would be most appreciated. May I ask you once more to help to settle those items as indicated in my letters of 26 May and of 27 June '74.

Please send all correspondence to my address in Austria.

Looking forward to hearing from you.

Sincerely yours,

Eckhard H. Zander

Registy

Eckhard H. Zander
c/o Mrs. G. Becker
Unter den Weinbergen
343 Witzzenhausen
West Germany

RECORDS CONTROL
JUL 16 1974

(Regis)
H. Flandert 9/7/74

TE 432/21 Sudan (3-1)

RECEIVED

9 JUL 1974

PR/SECTION FOR AFRICA/DTG

Mr. Igor Radovic
Chief, Africa Branch
Physical Resources Dept.
Office of Technical Cooperation
United Nations
New York, N. Y. 10017
U. S. A.

For comments
cc Mr A. Mileshin TARS
11 July 1974 Delag
call: to Mr L. GONZALEZ's office
11 July 1974
cc. Mrs M. PASTORELLE
Room 25-57
12 July 1974
27 June 1974

Dear Mr. Radovic:

I refer to my letter of 26 May 1974 (copy attached), which has not yet been answered. I would very much appreciate your help in settling of the items mentioned in the letter.

In the first week of June, my final payment arrived. However, there is still the question of being reimbursed on the losses caused by the delay and by using the low exchange rate of April. This was mentioned in item 1) of my letter dated 26 May '74.

Also item 2) has not been cleared. I am still waiting to be reimbursed for the cost of my final examination amounting to DM 1,272.70. I cannot forward such amount over a long period.

I would be interested to learn whether anything new has developed regarding a new assignment. You recall that we considered Kenya as the next possibility on the geothermal project. I have to make a commitment within the next three weeks and it would be good to know before whether U.N. has any opportunities.

For the next 14 days, I can be reached also under this address:
Eckhard H. Zander, Haus Hellbrunn Top 19, A-5301 EUGENDORF 32/Salzburg, Austria.

Looking forward to hear from you and thanking you once more for your very kind endeavours.

Sincerely yours,

Eckhard H. Zander
Eckhard H. Zander

UNITED NATIONS



NATIONS UNIES

ECONOMIC COMMISSION
FOR AFRICA

COMMISSION ECONOMIQUE
POUR L'AFRIQUE

ENCLOSURE ATTACHED

P. O. Box 3001 • ADDIS ABABA • ETHIOPIA

CABLE: ECA. ADDIS ABABA
TELEPHONE: 47200

RECEIVED
21 JUN 1974
PR/SECTION FOR AFRICA, ETC

RECEIVED IN RECORDS CONTROL	
19 JUN 1974	
ACTION TO:	
1	MR. WATTS
2	Mr. Raden
3	Mr. Flanders
<input checked="" type="checkbox"/> PUT AWAY	
DATE:	10 June 1974
REFERENCE:	TA 220(232-2)
ON:	Sudan
TO:	

TE 432/21 SUDAN (3-1)

Dear Mr. Watts,

..... Please find attached two copies of ECA's comments on the report,
dated March 1974, of Mr. Eckhard H. Zander
Expert in the Sudan

The comments have not been transmitted to the Expert.

I should be grateful if you would inform me of what action has been
taken with regard to these comments, and I would appreciate receiving a
copy of your comments on this report.

Yours sincerely,

HAG
J.B. Jeffrey-Coker, Chief
Technical Assistance and Programme
Co-ordination Office

Mr. Kenneth Watts
Deputy Director, Africa Branch
Office of Technical Co-operation
United Nations Headquarters
New York 10017, N.Y.
U.S.A.

OFFICIAL CORRESPONDENCE	CONTROL NO.
MUST BE RETURNED TO RECORDS CONTROL, ROOM 2074	6/279

cc: FAND
WF (Zander)

Mr. Zander's progress report on Sudan project

This is a routine six monthly progress report submitted by the UN/OTC Ground water expert working on project SUD/68/001 - water drilling in Sudan. Mr. Zander has been here recently, and it was learnt from him that he was on his way to New York and had left the project. It appears that the first phase of the project was over and it might lead to the second phase.

It is very difficult to give any comments on the technical aspects of a project on the basis of a single routine report submitted by an expert attached to a project. This is the first report received in Water Resources Unit on the project SUD/68/001. We have not seen the project document even. It was understood that Mr. Zander had been working on this project for the last four years. If ECA has to play a useful part in commenting and reviewing water resources projects in Africa in order to coordinate such activities for optimum utilization of funds and resources, it is necessary that an organized system should be established for ECA's participation in water resources projects from the time they are conceived to the time they are implemented.

H. Singh
Hydrometeorologist

Eckhard H. Zander
c/o Mrs G. Becker
Unter den Weinbergen 7
343 Witzzenhausen
West Germany

RECORDS CONTROL

JUL 16 1974

TE 432 / 21 Sudan (5-1)

Mr. Igor Radovic
Chief, Africa Branch
Physical Resources Dept.
Office of Technical Cooperation
United Nations
New York, N. Y. 10017
U. S. A.

26 May 1974

Dear Mr. Radovic,

As already mentioned during my recent stay at U.N. HQS, there are several items connected with the termination of my assignment that have caused unnecessary financial losses to me.

1) My final U.N. clearing form was submitted to UNDP's Khartoum office on 9 March 1974.

When checking on my final pay including the repatriation grant just after arriving at New York on 22 April 1974, I learned that nothing was transferred yet. I complained about the delay and requested that soonest action be taken to arrange for the transfer. OTC's personnel section promised to speed up the matter and that upon my return to HQS around 12 May, all would be completed.

However, when checking on 14 May with payroll section, I found that neither the final pay nor the repatriation grant had been transferred. They had just completed the calculation. I urged for an immediate transfer as I had payment obligations to meet upon my return to Germany and was promised that the transfer would be done before the end of that week.

Today, on 26 May, when checking with my bank I learned that the transfer had not arrived yet! You will agreed with me that I am left in a difficult situation and I have now to overdraw my account and will be charged interest.

I mentioned already to you at New York that I was quite concerned with the length U.N. required to arrange for the final payment and the repatriation grant, although I had duly handed over my final clearing form as early as 9 March '74.

I am waiting now for more than two and one half months. My last salary was received in January '74, and I wonder if someone in New York could imagine what problems this delay has caused to me.

Moreover, due to the delay I have lost money, because the exchange rate US \$ to West German mark was more favorable in March (1 US \$ = 2.66 DM) than it was on 14 May (1 US \$ = 2.45 DM), when payroll section computed the final pay and repatriation grant.

On the total amount of US \$ 8,167.74, I have lost German Marks 1,715.22 by applying the low rate of 2.45 DM for one US \$, instead of 2.66 DM for one US \$, would my final pay be computed and transferred in March '74 when it was due.

I am officially requesting herewith that the above amount of DM 1,715.22 be transferred to/as soon as possible, because I am not supposed to suffer for the delay in UN's administration. It is also the employer's duty to ~~fulfill~~ his obligation once the employee has fulfilled his. I believe it is unfair to have the employee shouldering the loss.

I request that the final payment, the repatriation grant and the amount of DM 1,715.22, be transferred to me without any further delay.

2) When arriving at New York on 22 April '74, I submitted to OTC's personnel section my claim for reimbursement of cost in connection with my final examination amounting to DM 1,272.76.

Three weeks later when coming back to New York on 13 May, I found that no action had been taken as the person to evaluate the claim was on leave.- I believe it an impossible procedure to have the employee forwarding such an amount and to delay the reimbursement unnecessary. Until today, that is more than one month, the the claim remained unsettled!

3) When my post in the Sudan was changed from Deputy Director Ground Water Department to Adviser, Ground Water Department and UN expert, on 11 February 1973, I requested UN to permit me to contribute to the pension fund retroactively for the four years of my OPAS assignment during which I had not been included in the UN pension plan. However, I received a negative answer, but I believe I have the same rights as any UN expert, who, after five years of service for UN would already be eligible for pension rights, when reaching the age.

I, therefore, request that my petition to contribute retroactively to the pension plan be reconsidered and that UN also contributes its share according to the regulations.

I am sorry to bother you with my private matters, knowing how busy you are. However, as I could not succeed to get any further I kindly request you to please help me to settle the above items as early as possible.

I would also appreciate to learn whether anything new has developed on a new assignment.

Thanking you for your very kind endeavours.

Sincerely yours,

Eckhard H. Zander
Eckhard H. Zander

SUDAN

Telephones ; 73121, 73123, 73124

Ref : PROG/74/404
UN/SUD/68/001

TE 432/21 SUDAN (3-1)

Text :

CAPPELLETTI UNDEVPRO

**MUST BE RETURNED TO
RECORDS CONTROL, ROOM 2074**

SIGNATURE

Meister

Eckhard H. Zander
c/o United Nations
Development Programme
P.O. Box 913
Khartoum Sudan

H. Zander 14/3/74

*Registry
Pat away L. Zander
18-3-74*

RECEIVED



Mr. Igor D. Radovic
Chief, Physical Resources Section, Africa Branch
Office of Technical Cooperation
United Nations
New York

7 March 1974

TE 432/21 Sudan (3-1)

[Signature]
Dear Mr. Radovic:

Further to your letter of 22 January '74, please find attached five copies of my final report covering the period of my OPAS and UN assignment in the Sudan.

A final tripartite review was held at Khartoum on March 4, 1974, at the Office of the Rural Water And Development Corporation, the counterpart agency together with the program officer of UNDP Khartoum's office and the undersigned.

Please kindly forward further correspondence to my German address : c/o Mrs. Becker, Unter den Weinbergen 7, 343 WITZENHAUSEN, West Germany. However, I shall pass through New York during the first part of April and I request to be given the opportunity to meet with you.

The evaluation on Messrs. Tupas and Tejpal has been forwarded to the UNDP Res. Rep. Khartoum who will forward it to you soon.

Sincerely yours,

Eckhard H. Zander
Eckhard H. Zander

Note: copies of the final report have been submitted to UNDP Res. Rep. Khartoum and to the Rural Water and Development Corporation.

*Registry
WF
FAND*

ORIGINAL DIRECT

L. Flanders/dm
cc: Mr. Sanchez
Mr. Cappelletti

RECORDS CONTROL

MAR 12 1974

TE 432/21 SUDAN (3-1)

7 March 1974

VIA POUCH

Dear Mr. Zander,

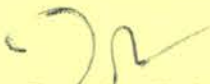
Many thanks for your letter of 31 January 1974.

We have received a request from Mr. Cappelletti to extend your contract for 15 days to compensate for the Chad/Mali Mission of July/August 1973. If we get a further request for an additional extension of several months, we will of course be ready to take the necessary action.

We discussed the matter with our colleagues concerned in New York and as there are no outstanding problems of any magnitude or in relation with future activities, we would find it difficult to justify the expenditure related to your debriefing at Headquarters. However, if, for any reason, you plan to visit New York in the near future or at any other time, we would be delighted to arrange appropriate meetings with you.

We look forward to receiving your final report in the near future.

Sincerely yours,



Igor D. Radovic, Chief
Physical Resources Section, Africa Branch
Office of Technical Cooperation

Mr. Eckhard H. Zander
c/o Resident Representative
UNDP, P.O. Box 913
Khartoum, Sudan

ORIGINAL DIRECT

RECORDS CONTROL

FEB 14 1974

L. Flanders/dm
cc: Mr. Gonzalez
Mr. Kaba

Mr. S. Gold, Senior Administrative Officer
for Technical Co-operation Finance Matters

11 February 1974

TE 432/21 SUDAN
(3-1)

Igor D. Radovic, Chief, Physical Resources
Section, Africa Branch, OTC

SUD/68/001 Water Drilling, Mr. E. Zander

1. As you will see from the attached cable from Mr. Cappelletti, Resident Representative in Sudan, Mr. Zander, expert under the above referenced project, was detailed for a 15 day mission to Chad and Mali during July/August, 1973. Mr. Cappelletti is requesting a 15 day credit to the IPF of Sudan and accordingly a 15 day extension of Mr. Zander's services. All of the costs of the Chad/Mali mission including Mr. Zander's pay should be charged to MALI/67/507, Strengthening Government Services for Groundwater Exploration and Development. Please refer to the request for travel authorization dated 24 July 1973.

2. A P-5 request for Mr. Zander's extension is attached for your approval and forwarding to Mr. Conner's for action.

ORIGINAL DIRECT

L. Flanders/dm
cc: Mr. Cappelletti - Res Rep
Mr. Fano

RECORDS CONTROL

FEB 6 1974

TE 432/21 SUDAN (3-1)

22 January 1974

VIA POUCH

Dear Mr. Zander,


Subject: SUD/68/001 Final Report

Inasmuch as you will be ending your assignment in Sudan on 11 February 1974, we look forward to receiving your final report covering the principal findings and results of the project and the recommendation stemming therefrom.

At the same time you may wish to provide us, in consultation with the Resident Representative, with a brief narrative covering your views on the performance of Messrs. Tejpal and Tupas, specifically with a view to recommending whether their further employment with the U.N. on other projects is to be advised. I urge you to be as objective as possible in your evaluation and discuss the matter fully with the Resident Representative.

In closing let me thank you for the outstanding service you have given to Sudan and the United Nations.

Sincerely yours,


Igor D. Radovic, Chief
Physical Resources Section, Africa Branch
Office of Technical Cooperation

Mr. Eckhard H. Zander
c/o Resident Representative
UNDP, P.O. Box 913
Khartoum, Sudan

UNDEVPROGRAM
United Nations Development Programme
SUDAN

Cable : "UNDEVPRO" Khartoum
Telex No : 217 UNDEVPRO Khartoum

Telephones : 73121, 73123, 73124, 73125.

Address :

MR. L. FLANDERS
ROOM NO. 2401
ESA/ OTC
NEWYORK

Date : 12 January 1974

Ref : PROG/74/022
SUD/68/001

TE 432/21 SUDAN (3-1)

RECEIVED IN RECORDS CONTROL	
17 JAN 1974	
ACTION TO:	
1	Mr. FLANDERS
2	
3	
PUT AWAY	
INITIALS	
BRING FORWARD	
CN	73125
DAY	MONTH YR.

Text :

E. ZANDER GROUND WATER ADVISER SUD/68/001 REQUESTS
THAT YOU POUCH SOONEST FOUR EVALUATION / RECOMMENDATION
FORMS FOR HIS REPORT ON PROJECT PERSONNEL

OFFICIAL CORRESPONDENCE	CONTROL NO.
MUST BE RETURNED TO RECORDS CONTROL, ROOM 2074	1/221

CAPPELLETTI UNDEVPRO

Reply should refer to the
above reference number.

SIGNATURE :

[Handwritten signature]

ORIGINAL DIRECTOR

RECORDS CONTROL

DEC 20 1973

Drafted by: L. Flanders/dm
clearance: Mr. Radovic

TE 432/21 SUDAN (3-1)

13 December 1973

VIA POUCH

PERSONAL

Dear Mr. Zander,

Many thanks for your letter of 1 December 1973 regarding the expiration of your contract in February 1974, and your interest in being considered for other posts which may be open.

Let me say first that we appreciate very much your work in Sudan and you can be assured we will do everything possible to find you an appropriate assignment elsewhere when your present assignment is completed. With this in mind I have referred your letter to TARS so you may be given consideration in the context of the wider recruitment needs of the United Nations. For our part, we are looking into the situation in Africa to see if something may be available in one of the other countries. I have also discussed the matter with the Substantive Office and they are keeping an eye open for possible vacancies which you would be qualified to fill.

In closing let me thank you for your good work in Sudan and wish you and your family happiness during the Holiday Season and the coming year.

Sincerely yours,

Kenneth Watts
Deputy Director, Africa Branch
Office of Technical Cooperation

Mr. Eckhard H. Zander
c/o Resident Representative
UNDP, P.O. Box 913
Khartoum, Sudan

Eckhard H. Zander
c/o United Nations
Development Programme
P.O. Box 913
Khartoum Sudan

RECORDS CONTROL

DEC 20 1973

SECTION FOR AFRICA

6 DEC 1973

Mr. Kenneth A. Watts
Deputy Director, Africa Branch
Office of Technical Cooperation
United Nations
New York, N.Y. 10017
U. S. A.

TE 432/21 SUDAN (3-1)

1 December 1973

Dear Mr. Watts:

*Mr. Zander
I would like to
reply directly
please*

KW -6. DEC. 1973

During my last briefing at New York in July, I had requested to be informed on assignments following the completion of my present mission to the Sudan, at least by the end of December '73, as my present contract expires on 11 February 1974.

I would be very grateful if you could kindly advise me on the possibilities existing either in the fields or at headquarters so that I could make plans.

Thanking you very much for your kind endeavours and consideration .

Sincerely yours,

Eckhard H. Zander
Eckhard H. Zander

*Milashin
Registry
WF*

HERE NINE MEANTIME

UNDEVPRO RM.

RECORDS CONTROL

MAR 8 1974

REGISTRY FILE COPY

NO2 (TAA) NEW YORK 47 11 21062=

DRAFTER:

LTF

FILE No:

UNDEVPRO

KHARTOUM=

41 CAPPELLETTI REUR 19 SUD/68/001 WE REQUESTING FINANCIAL SERVICE

CREDIT SUDAN IPF 15 DAYS COMPENSATE CHAD/MALI MISSION.

SAMETIME WE REQUESTING P-5 ACTION EXTENDING ZANDER CONTRACT

THROUGH 26 FEBRUARY. YOUAND ZANDER WILL BE INFORMED WHEN

ADMINISTRATIVE ACTION COMPLETED=

WATTS+

COL 41 19 SUD/68/001 15 P-5 26+

Thander

JE 432/21

Sudan

(3-1)

WAD MAGBOUL TRAINING INSTITUTE
 MINISTRY OF AGRICULTURE, FOOD AND NATURAL RESOURCES. ADM. OF SURFACE AND DEEP
 WELLS WATER RESOURCES.
 KHARTOUM - (Sudan)

Aug 7 1973

TE 432/21 SUDAN (S-2)

PROGRESS REPORT OF Mr. N. K. Tejpal GROUND
 WATER DRILLING INSTRUCTOR, FOR THE PERIOD
1 Dec. 1972 - 30 June 1973

Class-room lectures on the theory of internal combustion engines and workshop practice in the dismantling and assembling of engines was continued. Simultaneously new subjects of metal cutting, bench fitting and oxy-acetylene gas welding and metal cutting were introduced.

A brief detail of the courses covered is as follows:

Class-room lectures on the theory of internal combustion engines on the following subjects were delivered

- a) Charging of cylinders, full charge, super charging. Effects of super charging, Blowers, boosters. Advantages of super chargers
- b) Gas constant, Boyle's law, Isothermal and adiabatic changes.
- c) Basic principles of working of 2 stroke cycle Petrol engines
- d) Basic Principles of working of 2 stroke cycle Diesel engines
- e) Scavenging, Air Intake systems of 2 stroke GM engines. Turbo chargers, jets.
- f) Fuel system of Petrol engines, - Properties of gasoline, mixture, proportions of air and fuel to form best explosive mixtures, Rich and lean mixtures. Motive force of carburetors vacuum and pressure, absolute pressure. The Venturi principle. Normal vacuum readings for an engine in good condition. Functions of a carburetor. Description of float chambers, float level, needle valves, floats. Idle running, main and pump jets, air bleeds, correction jets. Chokes, Automatic chokes. Fuel feed systems. Mechanical pumps. Diaphragms, valves. Functions of the diaphragm return spring and fuel pump rocker arms return spring. Electrical pumps. Application of electric fuel pumps in tropical countries. Fuel filters.
- g) Air cleaners - Types of air cleaners. Oil bath air cleaners, heavy duty oil bath air cleaners with silencer assembly.
- h) Valve timing, open and close periods of valves. Calculations of Marking of T.D. C. marks on flywheels, vibration dampers and pulleys. Calculations for Marking of fuel injection timing marks on flywheels. Ignition timing of petrol engines. Automatic spark control - ~~spark control~~ by centrifugal governor and vacuum control. Magneto ignition systems.
- i) Cooling systems - Descaling of cylinder walls. Use of Anti rust compounds for water cooled systems. Use of anti freeze compounds. Maintenance of cooling systems. Air cooling systems in tropical countries.

- j) Batteries - Construction of Lead Acid Batteries - Chemical reactions involved in the charging and discharging of Lead Acid batteries. Specific gravity of the electrolyte. Temperature correction for specific gravity. Sulphation of plates. Charging of batteries. Maintenance of batteries. Storage precautions to be taken when batteries are not to be used for long periods.

Training in the practical work in the workshop was carried out as follows:-

Assembling of one ⁶cylinder petrol engine and one six cylinder Diesel engine were completed. One single cylinder petrol engine of a lighting set has been dismantled. On account of non availability of spare parts it could not be reassembled.

Practical training on setting of valve timing of petrol and diesel engines imparted. Setting of fuel injection timing of diesel engines and ignition timing of petrol engines carried out. Checking accuracy of T.D.C. marks on flywheels and pulleys. Marking T. D. C. ignition timing and fuel injection timing marks on flywheels.

Batteries - Dismantled negative and positive plates of the cells of lead acid batteries. Checking of condition of electrolyte with the help of hydrometer. Preparation of electrolyte. Use of hydrometer with temp. scale for temp correction of specific gravity of electrolyte. Use of High Rate Discharge cell tester for testing of batteries. Carried out charging of batteries with the help of a battery charger operated on 220 volts Ac mains.

Fuel system Petrol Engines - Dismantled and assembled mechanical fuel feed pumps and carburettors.

Air cleaners of petrol and diesel engines oil bath type dismantled and assembled. Dismantled the radiator core of one radiator of a petrol engine.

Oxyacetylene welding and metal cutting.

Theory:-

Lessons on basic principles of oxy-acetylene welding of ferrous and non ferrous metals were given, explaining details about the flames - neutral oxidizing, carburising.

Ratio of oxygen and acetylene for various types of flames. Temperature of flames, Blow pipe sizes for various thickness of different types of steel. Use of fluxes for various types of welding processes.

Practical lessons on welding of mild steel plates of various thickness and mild steel pipes, brass pipes copper pipes etc. were given. Cutting of steel plates and pipes with oxy-acetylene cutting torch was carried out.

Cutting of pipes and plates with hacksaws carried out. Filing of metals and forming V-grooves and preparation of edges for welding processes carried out.

Films on the following subjects were shown to the students:-

1. A study of the fuel injection system of a Diesel Engines
2. First principles of lubrication
3. How the petrol engine is lubricated
4. How the carburettor works
5. How to use a file
6. How to maintain the Diesel Engine

7. Working principles of 2 stroke petrol engines
8. Drilling for oil.

Six sessions of discussions on the theory and practice of internal combustion engines were held. These were questions and answer sessions so arranged to revise the course covered.

Practical tests on the course covered on internal combustion were carried out.

My counterpart Mr. Ahmed Mahmoud El Hadi has been taking keen interest in the training programme. He continued the training of the students in my absence when I was on Home leave. He has been recommended for training in the states and the relevant UN fellowship papers have been submitted to UNDP for approval.

The Assistant Directors of the Drilling Section of the Corporation have been paying visits to the Institute. They realised that the present workshop is too small for the number of students under training. They moved the building construction dept to carry out the extension of the present workshop. The construction materials were supposed to have been issued before 30th June, 1973. It is expected that very shortly the materials will be issued and the construction of the workshop started.

The building of the office for the Drilling Instructors has been completed. The furniture to furnish this office i.e. the tables chairs and cup-boards are being manufactured in the central workshop and are expected to arrive by the end of July '73.

The construction of the laboratories and the library buildings has been completed. The doors and windows etc. have not been fitted on account of shortage of wood.

The sectional wall charts of engines etc. given over for framing long ago have not been completed for want of wood.

On account of paucity of funds tools and equipment for workshop could not be purchased locally. The Manager of workshops has, however, promised to issue tools and equipment to us out of the consignments received from abroad at Port Sudan.


N. K. Tejpal
U N DRILLING INSTRUCTOR

3 AUG 1973

AUG 31 1973

Rec'd in RC

ACTION

N. K. TEJPAL

G.W. Drilling Instructor
(Mechanics)

c/o Resident Representative

U N D P

Khartoum (Sudan)

TO:

1 Mr. Radovic

2 Mr. Plandins

3

☒ Action Completed☐ Acknowledged☐ No Action Required

L. J.

July 15, 1973

TE 432/21 SUDAN (3-1)

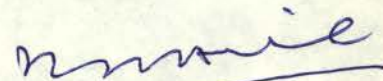
Dear Mr. Radovic,

I enclose herewith my progress report in triplicate for the period ending June 30, 1973 in connection with the training of driller trainees of Rural Water Dev. Corporation in the Theory and Workshop practice of the Mechanical Section of the Water Well Drilling Technology training being conducted at Wad Magboul Training Institute Khartoum.

Needless to mention that I have been putting in my best to make the training useful and effective, I would certainly look forward to receiving your advice to improve the programme.

Thanking you,

Yours sincerely,



(N. K. Tejpal)

Mr. Igor Radovic,
Section chief,
Physical Resources
Africa Branch
United Nations
New York.

c.c. Res. Representative
U. N. D. P.
Khartoum

OFFICIAL CORRESPONDENCE

MUST BE RETURNED TO
REGISTRY, ROOM 2074

8/89

ORIGINAL DIRECT

RECORDS CONTROL

4 JUN 1973

Drafted by: L. Flanders/dm

TE 432/21 SUDAN (3-1)

30 May 1973

Dear Mr. Zander,

Subject: Progress Report Covering the Period 15 July -
10 February 1973.

We were pleased to receive your progress report and to note with satisfaction the way you are carrying out your responsibilities. The report has been reviewed by our Technical Advisers who have no substantive comments to offer.

Sincerely yours,



Igor Radovic

Chief, Physical Resources Section
Africa Branch, Office of Technical Cooperation

Mr. Eckhard H. Zander
c/o Resident Representative
UNDP, P.O. Box 913
Khartoum, Sudan

ORIGINAL DIRECT

JUN 4 1973

TE 432/21 SUDAN (3-1)

30 May 1973

Dear Mr. Zander,

Subject: Progress Report Covering the Period 15 July -
10 February 1973.

We were pleased to receive your progress report and to note with satisfaction the way you are carrying out your responsibilities. The report has been reviewed by our Technical Advisers who have no substantive comments to offer.

Sincerely yours,

Igor Radovic

Chief, Physical Resources Section
Africa Branch, Office of Technical Cooperation

Mr. Eckhard H. Zander
c/o Resident Representative
UNDP, P.O. Box 913
Khartoum, Sudan

ORIGINAL DIRECT

Drafted by: L. Flanders/dm
clearance: Mr. Radovic
cc: Mr. Camara
RECORDS CONTROL

JUN 4 1973

TE 432/21 SUDAN (3-1)

29 May 1973

VIA POUCH --

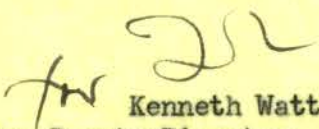
Dear Mr. Cappelletti,

Subject: SUD/68/001 - Water Drilling

Many thanks for your letter of 28 April 1973 forwarding the project revision forms covering Mr. Zander's extension. I wanted to reply before now, but we found that some changes were required in the project revision before it could be returned to you. For the most part your revision was correct, although we found some minor discrepancies between the figures you gave and the information we have in our files. In addition to these minor corrections, we have listed the costs of the other experts involved in the project separately, rather than aggregating them as you had done. We also included the fellowship component to bring the whole thing in closer conformity with standard UNDP format for revisions. We believe these changes will make the revision more explicit and easier to understand at first glance.

I have signed the revisions and they are attached for the Government's and your signature. Please return several conformed copies for our files.

Sincerely yours,


Kenneth Watts
Acting Deputy Director, Africa Branch
Office of Technical Cooperation

Mr. Luciano Cappelletti
Resident Representative
UNDP, P.O. Box 913
Khartoum, Sudan

UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT REVISION FORM

(To be Submitted by the Government)

Country: SUDAN
Project Title: Water Drilling
Project No.: SUD/68/001/C/01

The Government requests that the above project be amended as shown on the attached revised work plan and budget. The main objective of this amendment is to:

Change the title of the post of Deputy Chief of the Groundwater Section to Groundwater Department Adviser, extending the post twelve man/months and converting it from OPAS to Advisory status. The purpose being to extend the scope of the experts activities so as to provide a broader range of assistance to the Government.

Submitted on behalf of the Government

Date

Agreed on behalf of the Executing Agency

Date

Approved on behalf of UNDP

Date

Project Revisions Covering UNDP Contribution (In U.S. Dollars)

Country: Sudan

Project No.: SUD/68/001/C/01

Title: Water Drilling

	<u>1971</u>		<u>1972</u>		<u>1973</u>		<u>1974</u>		<u>Total</u>	
	M/M	\$	M/M	\$	M/M	\$	M/M	\$	M/M	\$
<u>10. Project Personnel</u>										
<u>11. Experts</u>										
11-01 Ground Water Dept. Adviser					11	27,500	1	2,500	12	30,000
11-02 Drilling Instructor			4	10,000	12	30,000	12	30,000	28	70,000
11-99 Sub-Code Total			4	10,000	23	57,500	13	32,500	40	100,000
<u>12. OPA S EXPERTS</u>										
12-01 Deputy Chief Drilling Engineer	35		12	23,500	1	2,000			48	25,500
12-02 Training Officer	28		12	18,000	12	18,000	8	12,000	60	48,000
12-99 Sub-Code Total	63		24	41,500	13	20,000	8	12,000	108	73,500
18. Prior 1972 Expenditures		92,780								92,780
19. Component Total	63	92,780	28	51,500	36	77,500	21	44,500	148	266,280
<u>30. Training</u>										
<u>31. Fellowships</u>										
31-01 Drilling Engineer			9	6,797					9	6,797
31-02 Drilling Engineer			2	3,127	7	3,963			9	7,090
31-99 Sub Code Total			11	9,924	7	3,963			18	13,887
38. Prior 1972 Expenditures		1,192								1,192
39. Component Total		1,192	11	9,924	7	3,963			18	15,079
<u>50. Miscellaneous</u>										
53. Sundry				614		500		500		1,614
59. Component Total				614		500		500		1,614
99. Grand Total	63	93,972	39	62,038	43	81,963	21	45,000	166	282,973

ENCLOSURE ATTACHEE

UNITED NATIONS
DEVELOPMENT PROGRAMME



برنامج التنمية التابع
MAY 2 1973

الأمم المتحدة ACTION

OFFICE OF THE RESIDENT REPRESENTATIVE
P. O. Box 913, KHARTOUM

CABLES : "UNDEVPRO" K H A R T O U M
TEL. NOS. 73121 - 73123 - 73124 - 73125

DATE : 28 Apr 1973
REF. PROG/73/506
SUD/68/001
Action Completed
Acknowledged
Action Required
CONTRALS

TO:	Mr. Watts
1	Mr. Flanders 4/5/73
2	
3	
<input checked="" type="checkbox"/>	Action Completed
<input checked="" type="checkbox"/>	Acknowledged
<input checked="" type="checkbox"/>	Action Required
<input checked="" type="checkbox"/>	CONTRALS

TE432/21 SUDAN (3-1)

Dear Mr. Watts,

Subject: SUD/68/001 - Water Drilling Project
Groundwater Department Adviser

Please refer to your letter of the 23rd. February
regarding the extension of the contract of Mr. E.H. Zander.

.....
I have amended the Project Revision Form in accordance
with your suggestions and enclose herewith four copies signed by the
Government. Perhaps you would kindly sign this document on behalf of
the Executing Agency and return the four copies to me for approval on
behalf of the UNDP. I will then send you a conformed copy for your
records.

Yours sincerely,

L. Cappelletti
Resident Representative

Mr. K. Watts
Deputy Director for Africa Branch
UN/OTC
NEW YORK.

UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT REVISION FORM

(To be Submitted by the Government)

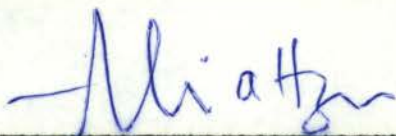
Country: SUDAN

Project Title: SUD/68/001

Project No.: Water Drilling

The Government requests that the above project be amended as shown on the attached revised work plan and budget. The main objective of this amendment is to :

Change the title of the post of Deputy Chief of the Groundwater Section to Groundwater Department Adviser, extending the post twelve man/months and converting it from OPAS to Advisory status. The purpose being to extend the scope of the experts activities in line with the attached job description.



Submitted on behalf of the Government

22 / 4 / 1973

Date

Agreed on behalf of the Executing Agency

Date

Approved on behalf of UNDP

Date

PROJECT BUDGET COVERING UNDP CONTRIBUTION
(IN US DOLLARS)

Country: SUDAN
Project No.: SUD/68/001
Title: Water Drilling

	1969	1970	1971	1972	1973	1974	TOTAL
	m/m \$	m/m \$	m/m \$	m/m \$	m/m \$	m/m \$	m/m \$
10. <u>Project Personnel Component</u>							
11. <u>Experts</u>							
11.02 Groundwater Department Adviser					11 27,500	1 2,500	12 30,000
11.99 Sub-Code Total				12 30,000	23 57,500	13 32,500	48 120,000
12. <u>Opas Experts</u>							
12.01 Deputy Chief Drilling Engineer			35	12 23,500	1 2,000		48 25,500
12.99 Sub-Code Total			65	24 41,500	13 20,000	8 12,000	110 73,500
18. Prior 1972 Expenditure			93,133				93,133
19. Component Total		65 93,133		36 71,500	36 77,500	21 45,500	158 286,633
99. Grand Total		65 93,133		54 81,600	36 77,500	21 45,500	176 297,733

Request From The Government Of The Republic Of

Sudan

Job Description

SUD - 130-071-X

Post Title: Ground Water Department Adviser

Duration: One year, with possibility of extension

Date Required: 10 February 1973

Duty Station: Khartoum, with some field trips.

Duties: In cooperation with the Director of the Ground Water Department, Ministry of Natural Resources and Rural Development, Republic of Sudan to:

1. Assist and advise the Director of the Ground Water Department in all matters connected with managing various sections of the Department;
2. Support, advise and guide a national counterpart in operation of the Drilling Section of the Ground Water Department with emphasis on planning, programme coordination, analysis of operations, management and planning of equipment maintenance;
3. Train Sudanese Drilling Engineer, Drilling Superintendent, Toolpushers, and Drillers in performing specialized tasks;
4. Advise on drilling and completion methods required for large diameter irrigation wells;
5. Organize the work over old low production water wells;
6. Introduce new drilling techniques and train sufficient staff to apply them;
7. Train percussion drillers for further improving the performance achieved so far;
8. Train drilling staff in the completion of wells, especially in regards to placing gravel pack in deeper wells, installation of pre-gravel packed screens;
9. Improve the technical office of the Drilling Section which will include reviewing the filing system and data collection and preparation of new record forms for more comprehensive evaluation of all operations of the Drilling Section;

/.....

10. Advise on compilation of the estimated annual requirements of all drilling equipment and accessories;
11. Assist and advise on the preparation of the Budget of the Drilling Section;
12. Assist in constituting a board for the preparation of technical specifications for drilling equipment, tools, bits, casing screens, wire lines, etc. and to train drilling engineers who will be members of the technical board in the preparation of specifications, and the evaluation of tenders;
13. Advise and assist the staff of the Ministry's Drilling School in all matters connected with the training of students.

Qualifications:

University degree, with broad experience in the management of tubewell drilling units using percussion and rotary methods, especially in arid zones; experience in Africa, preferably in the savannah areas, desirable.

Language:

English

Background
information:

The Sudan covers an area of about one million square miles, and has a population of about 13 million. The water problems are particularly acute outside the Nile Valley, especially in the savannah area which extends itself between latitudes 10 N and 16 N where sixty per cent of the population lives and where seventy per cent of the cattle can be found. It is in this area that gum arabic, amounting to eighty per cent of the world's consumption is produced.

The average rainfall in the savannah belt is in the south: about 800 mm against about 300 mm in the north. Groundwater is the only dependable water resource of the area: it is found in two main aquifer formations: the Nubian sandstones and the Um Ruwaba series.

UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT REVISION FORM

(To be Submitted by the Government)

Country: SUDAN

Project Title: SUD/68/001

Project No.: Water Drilling

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Submitted on behalf of the Government

Date

Agreed on behalf of the Executing Agency

Date

Approved on behalf of UNDP

Date

PROJECT BUDGET COVERING UNDP CONTRIBUTION
(IN US DOLLARS)

Country: SUDAN
Project No.: SUD/68/001
Title: Water Drilling

	1969	1970	1971	1972	1973	1974	TOTAL
	m/m \$	m/m \$	m/m \$	m/m \$	m/m \$	m/m \$	m/m \$
10. <u>Project Personnel Component</u>							
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The average rainfall in the savannah belt is in the south: about 800 mm against about 300 mm in the north. Groundwater is the only dependable water resource of the area: it is found in two main aquifer formations: the Nubian sandstones and the Um Ruwaba series.

UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT REVISION FORM

(To be Submitted by the Government)

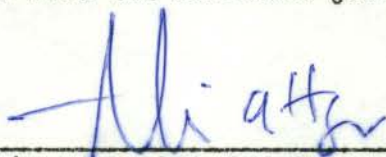
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Project Title: SUD/68/001

Project No.: Water Drilling

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Submitted on behalf of the Government

22/4/1973
Date

Agreed on behalf of the Executing Agency

Date

Approved on behalf of UNDP

Date

PROJECT BUDGET COVERING UNDP CONTRIBUTION
(IN US DOLLARS)

Country: SUDAN
Project No.: SUD/68/001
Title: Water Drilling

	1969	1970	1971	1972	1973	1974	TOTAL
	m/m	m/m	m/m	m/m	m/m	m/m	m/m
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99. Grand Total		65 93,133		54 81,600	36 77,500	21 45,500	176 297,733

11. Advise on completion of the estimated number of man-days for the drilling equipment and architectural outfit and submit to the preparation of the budget of the Drilling Section;
12. Assist in constituting a board for the preparation of technical specifications for drilling equipment, tools, bits, casing screens, wire lines, etc. and to assign drilling engineers who will be members of the Technical Board in the preparation of specifications, and the evaluation of tenders;
13. Advise and assist the staff of the Ministry's Drilling School in all matters connected with the training of students.

Qualifications:

University degree, with broad experience in the management of successful drilling units using percussion and rotary methods, especially in arid zones; experience in Africa, preferably in the savanna areas, desirable.

Language:

English

Background Information:

The Sudan covers an area of about one million square miles, and has a population of about 13 million. The water problems are particularly acute outside the Nile Valley, especially in the savanna area which extends itself between latitudes 10° and 15° North, where about 90 per cent of the population lives and where seventy per cent of the cattle can be found. It is in this area that our work is, according to eighty per cent of the world's consumption is produced.

The average rainfall in the savanna belt is in the south about 200 mm against about 50 mm in the north. Groundwater is the only dependable water resource of the area: it is found in two main aquifer formations: the Nubian sandstones and the Gb. (Gibber) series.

ORIGINAL DIRECT

RECORDS CONTROL

8 MAR 1973

TE 432/24 Sudan
(3-1)

RD/db

5 March 1973

Mr. Igor Radovic, Chief
Physical Resources Section for Africa, OTC

Mr. Alagappa Alagappen, Chief
Water Resources Section, RTD

Robert Dijon, Technical Adviser
Water Resources Section, RTD

1/32/226
SUD (3) 24

SUD/71/003 - Strengthening Government Services for Water Resources
Planning and Exploration and Management

..... Please find herewith a draft job description for the project manager
post.

ORIGINAL DIRECT

TE 432/21 SUDAN (3-1)

Mr. Igor Radovic, Chief
Physical Resources Section for Africa, OTC

2 March 1973

RECORDS CONTROL ~~SECRET~~

Mr. Alagappa Alagappan, Chief
Water Resources Section, RTD

MAR 8 1973

Robert Dijon, Technical Adviser
Water Resources Section, RTD

SUD/71/003 - Sudan - Strengthening Government Services for Water
Resources Planning, Exploration and Development

Reference is made to the draft project document which was forwarded to us together with the memorandum of Mr. Khuzayim, dated 8 February 1973.

We have the following comments:

1. Section I, and II - pages 1 to 8. The text is not fundamentally different from our preliminary draft, prepared in February 1972, and it is entirely satisfactory from our point of view. However we suggest that under "E. Further UNDP Assistance" the following be added: "UNDP assistance might be requested for the setting up of a water management project as indicated in paragraph C above."

2. Section III - Work Plan

Page 8. Preparatory activities - The later mentioned here may need to be revised.

Page 11. It is now proposed to survey two areas - Samsam (Kassala) and Gash basin (the location of this last areasshould be more clearly indicated).

Page 13. Inception date - The delays for recruitment being what they are that list some 6 months at least, it is proposed that 1st October 1973 be considered as the inception dates "I".

Page 14 and 15 - the figures for subcontractor must be changed so that they will conform with those indicated in the tables.

Page 16. UNDP - provided supplies - (b) Geophysical equipment - the choice of the equipment should be made by the consultant (instead of one magnetometer seismic equipment may be preferable.

Page 17. (b) instead of 3 hydrologists it should read 3 hydrogeologists.

3. Annex II - "Summary of the Request" - No substantive comments.

4. Project's budget (tables) - Counterpart Contribution in cash. Grand total for 1975 should read 12,200 and not 15,200. Counterpart contribution in kind - the total for the year 1973 is 55,600 and not 55,000.

There might be other errors of this kind in the documents. All the figures should therefore be carefully checked.

5. We have the following comments on Mr. Khuzayim's memorandum:

- a) In the Kassala project area both alluvium aquifer and crystalline rocks are present.
- b) There is no duplication with the FAO Savannah belt area, which will not work at all in the same area and will not have the basic institutional, organizational and training aspects of this project.
- c) There certainly will be some relationship between the U. N. Technical Assistance programme for water drilling and the large scale project. However, it is likely that the U. N. drilling experts will have left Sudan by the time this large scale project will be fully operational. On the other hand their presence will be of assistance in the first year of the project (1973-74) for the drilling operations which are an essential item of the Government contribution. We think however, that it would be advisable to include in this project document a paragraph mentioning that "the project will maintain close coordination with the projects FAO Savannah belt ... and the U. N. projects for technical assistance in water well drilling and related training activities No. ... and ..."
- d) We agree with this request (see above paragraph 2).
- (g) (f) The project manager post is in fact a senior adviser post, coordinating the various activities of the project and providing the necessary support to the field hydrogeologists of RWDC. In other words action in the field of hydrogeology parallel that provided by Mr. Zander in the field of water well drilling. A job description for the project manager is being prepared. An outstanding candidate of many talents is to be sought after for this most important post. We agree that the title post should be Project Manager, Senior Adviser. Unfortunately the budgetary limitations have resulted in a substantial *reduction* of the expert component of the project.
- g)* Subcontracts.
- The reasons for having this component subcontracted is that in addition to the services of experts, the project needs the *backstopping* of highly qualified organizations of firms. It may appear preferable to shift to direct recruitment if the risk of having the contracts handled by insufficiently qualified firms is too big, this matter should be discussed as soon as possible by OTC, RTD and P and T.
- h) Training "Logging Techniques" is for geophysical testing of wells "data collection and processing" in the field of water resources. This is quite a specialized operation and can hardly be related to the activities of the Institute of Public Administration in Khartoum..
- i) Equipment - The vehicles which are requested are as follows:
- Project Manager: 1 sedan (or station wagon) for Khartoum and 1 Land Rover
- Consultants: 1 Land Rover
- Geophysical Team: 1 light truck and 1 Land Rover (government).
- The mid-term review will certainly be useful. It is a *routing* procedure and we see no need for including a clause to this effect in the project document.
6. We have no further comments.

REGISTRY FILE COPY

DRAFTER:

FILE No:

*TE 4/32/1 Sudan
(3-1)*

NQ51 NY 72/70 23 1811Z

LTF

UNDEVPRO

KHARTOUM

57 CAPPELITTI SUD-68-001 REURLET 18 JANUARY 1972 MUCH REGRET ERROR OUR
LET 18 JAN STATING ZANDER SERVED MORE THAN SIX YEARS SUDAN WHEN IN FAC

IT WAS FOUR YEARS AS NOTED URLET. IN LIGHT THIS AND YOUR SOUND JUSTIFICA
ION

ZAMDER EEEEEEE ZANDER ONE YEAR EXTENSION AS ADVISORY

P2

EXPERT WE TAKING ALL NECESSARY STEPS APPROVE PROJECT DOCUMENT AND EFFECT
CONTRACT EXTENSION. REQUEST ZANDER SIT TIGHT

K WATTS +

COL 57 18 SUD-68-001 1972 +

Rgsky

Date: 23 February 1973

TO: Mrs. Hatami
Recruitment Officer, TARS

FROM: Sheila M. Albuquerque, Chief
Section for Africa, OTC

SUBJECT: Request for Recruitment Action

File: TE 432/21 Sudan (3-1)

cc: TARS Post Office
(with copy of draft job description)

RECORDS CONTROL

MAR 1 1973

Project Title: Water Drilling

Duration of initial appointment:

Post Title: Ground Water Adviser (Formerly Deputy Chief of the Ground Water Section) Expert Post Code: SUD-130-071-X
(Formerly: SUD-130-001-TA)

1. Attach is a copy of the draft job description for the above post. It has been cleared with the substantive office (the Project Manager if applicable).

2. The Personnel Action (P.5)

() has been sent to TARS

XX Will be sent to TARS (Copy of P-5 request attached)

(State reason and estimated forwarding date)

3. The OTC Programme Management Officer is: L. Flanders

4. The substantive Officer or Technical Adviser is: Mr. Fano

5. It is suggested that the job description be given

() GENERAL DISTRIBUTION to all recruitment sources:

() Regular circulation

() Urgent recruitment

() Revised job description

() LIMITED DISTRIBUTION only because:

() Associate Expert is to be recruited

(Name of senior supervising expert)

() Government has requested that recruitment be limited to:

(country or region)

XXX NO DISTRIBUTION because:

() Secretariat member is to be detailed

(Name)

XX Expert in the field is to be reassigned Mr. Zander*

(Name)

() Requesting Government nominee is to be recruited

(Name)

* Now serving in OPAS Status as Deputy Chief of Ground Water Section to be converted to Advisory Status with change of Post Title.

Clearance: Mr. Radovic
Drafted by: L. Flanders/cm
cc: Mr. Fano

ORIGINAL DIRECT

RECORDS CONTROL

MAR 1 1973

23 February 1973

TE 432/21 SUDAN (3-1)

Dear Mr. Cappelletti,

Subject: SUD-68-001 Groundwater Department Adviser

Many thanks for your letter of 8 February 1973 which clearly articulates the reasons for extending Mr. Zander's contract and converting him from OPAS to advisory status. As noted in our cable of today's date we very much regret the error made in our letter of 18 January stating that Mr. Zander had served for more than six years in Sudan. The fact that he has only served four years eliminates the basis of our previous objection to his extension.

I am therefore returning the project revision forms for Mr. Zander's extension and conversion to advisory status which I have signed as an emergency measure to effect the extension most rapidly. I would note, however, that the revision needs some modification to make it more accurate. I would suggest the following changes:

Title Page:

"The main objective of this amendment is to:

Change the title of the Post Deputy Chief of the Ground Water Section to Groundwater Department Adviser, extending the Post twelve man/months and converting it from OPAS to Advisory Status. The purpose being to extend the scope of the experts' activities in line with the attached job description

Such wording will get across the idea of changed functions while emphasizing continuity with the work already done by the expert.

Project Budget

The project budget is not clear inasmuch as you seem to have used the budget line 11.99 to aggregate prior 1972 expenditures, which is not standard practice.

Budget Line -

11.99 sub-code total - should include only the sub-total of expert costs for 1972 and subsequent years.

Budget Line -

18 should be "prior 1972 expenditures" and include all costs for experts incurred prior to 1972 - by year.

Mr. Cappelletti
Resident Representative
UNDP, Khartoum, Sudan

/.....

Budget Line

19 - Component Total - should represent the total of current yearly expenditures for experts plus prior 1972 expenditures.

Budget Line

99 - Should include all project costs.

The budget should reflect the costs of the post since its inception including the period of the extension.

In light of these considerations, you may need to modify the project revision and return it to me for signature.

Yours sincerely,

Kenneth Watts
Acting Deputy Director, Africa Branch

dm

UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT REVISION FORM

(To be Submitted by the Government)

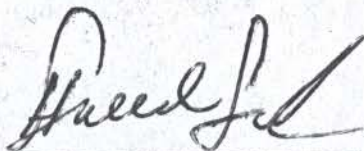
Country: SUDAN

Project Title: Groundwater Department Adviser.

Project No.: SUD/68/1

The Government requests that the above project be amended as shown on the attached revised work plan and budget. The main objective of this amendment is to:

Establish the post of Groundwater Department Adviser after the expiration of the OPAS post of Deputy Director of Groundwater Development, Ministry of National Resources and Rural Development. A job description is attached.



Submitted on behalf of the Government

29-11-72

Date



Agreed on behalf of the Executing Agency

23 FEB 1973

Date

Approved on behalf of UNDP

Date

Project Budget covering UNDP contribution
(in US dollars)

Country: Sudan

Project No.: SUD/68/1

Title: Groundwater Department Adviser.

	<u>Total</u>		<u>1973</u>		<u>1974</u>		<u>1975</u>	
	<u>m/m</u>	<u>\$</u>	<u>m/m</u>	<u>\$</u>	<u>m/m</u>	<u>\$</u>	<u>m/m</u>	<u>\$</u>
10. <u>PROJECT PERSONNEL</u>								
11 <u>Experts</u>								
11.02 Groundwater Department Adviser	12	30,000	11	27,500	1	2,500		
11.99 Sub-Code Total	48	120,000	23	57,500	13	32,500		
Component Total	158	286,633	36	77,500	21	44,500		
30. <u>TRAINING Fellowships</u>								
Component Total								
99. GRAND TOTAL	176	296,733	36	80,000	21	42,000		

Request From The Government Of The Republic Of

Sudan

Job Description

SUD - 130-071-X

Post Title: Ground Water Department Adviser

Duration: One year, with possibility of extension

te Required: 10 February 1973

Duty Station: Khartoum, with some field trips.

Duties: In cooperation with the Director of the Ground Water Department, Ministry of Natural Resources and Rural Development, Republic of Sudan to:

1. Assist and advise the Director of the Ground Water Department in all matters connected with managing various sections of the Department;
2. Support, advise and guide a national counterpart in operation of the Drilling Section of the Ground Water Department with emphasis on planning, programme coordination, analysis of operations, management and planning of equipment maintenance;
3. Train Sudanese Drilling Engineer, Drilling Superintendent, Toolpushers, and Drillers in performing specialized tasks;
4. Advise on drilling and completion methods required for large diameter irrigation wells;
5. Organize the work over old low production water wells;
6. Introduce new drilling techniques and train sufficient staff to apply them;
7. Train percussion drillers for further improving the performance achieved so far;
8. Train drilling staff in the completion of wells, especially in regards to placing gravel pack in deeper wells, installation of pre-gravel packed screens;
9. Improve the technical office of the Drilling Section which will include reviewing the filing system and data collection and preparation of new record forms for more comprehensive evaluation of all operations of the Drilling Section;

/.....

10. Advise on compilation of the estimated annual requirements of all drilling equipment and accessories;
11. Assist and advise on the preparation of the Budget of the Drilling Section;
12. Assist in constituting a board for the preparation of technical specifications for drilling equipment, tools, bits, casing screens, wire lines, etc. and to train drilling engineers who will be members of the technical board in the preparation of specifications, and the evaluation of tenders;
13. Advise and assist the staff of the Ministry's Drilling School in all matters connected with the training of students.

Qualifications:

University degree, with broad experience in the management of tubewell drilling units using percussion and rotary methods, especially in arid zones; experience in Africa, preferably in the savannah areas, desirable.

Language:

English

**Background
information:**

The Sudan covers an area of about one million square miles, and has a population of about 13 million. The water problems are particularly acute outside the Nile Valley, especially in the savannah area which extends itself between latitudes 10 N and 16 N where sixty per cent of the population lives and where seventy per cent of the cattle can be found. It is in this area that gum arabic, amounting to eighty per cent of the world's consumption is produced.

The average rainfall in the savannah belt is in the south: about 800 mm against about 300 mm in the north. Groundwater is the only dependable water resource of the area: it is found in two main aquifer formations: the Nubian sandstones and the Um Ruwaba series.

Mrs. Napoli

I. Radovic

L. Flanders

22 February 1973

TE 432/21 Sudan (3-1)

Mr. Hatami

RECORDS CONTROL

APR 10 1973

Extension and Conversion From OPAS To Advisory Status

Sudan

SUD-68-001 Water Drilling

Ground Water Department Adviser (Formerly Deputy Chief of the
Ground Water Section)

⁰⁷¹
SUD-130-001-X

⁴⁰⁷¹
~~4001~~-402-1

SUD-68-001

Conversion from OPAS To Advisory Status and Change of Post Title.
Revised Job Description Being Forwarded To TARS.

Mr. Eckhard H. Zander

10 February 1973

1 year

Khartoum

Revised Job Description Being Sent.

XXXXXXXXXX

XXXXXXXXXXXXXXXXXXXXXXXXXXXX

Subject willing to accept assignment to extension of his present
employer. EHS has been requested to negotiate with
appropriate authorities.

It is recommended that the subject receive full administrative
instructions and be given staff assistance during the
extension period.

Recommendation is being taken as action necessary to
obtain the necessary General approval for extension.

Registry

ORIGINAL DIRECT
A. Khuzayim:ci

RECORDS CONTROL

c.c. Mr. Dubey

FEB - 9 1973

Mr. Alagappa Alagappan, Chief
Water Resources Section, R and T

8 February 1973

TE 432/21 Sudan (3-1)

A. Khuzayim, OTC

SUDAN: Groundwater SUD/72/003

-
1. I am attaching for your review and comments the first draft Project Document for the above project. I have reviewed the document and I note that it is repetative in certain parts especially in the Work Plan. Timing of UN input delivery also does not always seem realistic in the draft, however, on the whole, the document seems acceptable subject to the following observations. I would appreciate it if you would review the draft and provide me with your recommendations and views.
 2. In preparing your comments kindly make specific reference to the following points in addition to your general appraisal of the document:
 - (a) The need for and the extent of exploration in crystalline and alluvial areas (page 4);
 - (b) The inter-relationship between this project and the FAO Savanna project with any recommendations you may wish now to make to avoid duplications of efforts of the two projects, for example, ~~that~~ the Savanna project contains a subcontract component for twentyfive man months expert in water resources, (page 6);
 - (c) What is the relationship between the present request and our present drilling programme in Sudan which includes three experts, i.e., Messrs Tejpal, Tupas and Zander. The document does not include activities of the above experts in the new project, hence one assumes that the new request is entirely different from the present active projects;
 - (d) Item (b) page 9 of the Work Plan shows that the Government has completed, before the end of 1972, a preliminary reconnaissance survey of the projects pilot areas. I suggest that all project areas should be clearly identified and shown in a map to be annexed to the Document.
 - (e) Notwithstanding the provision for personnel component in the subcontracts, I fail to understand the need for a post of a "Project Manager" for four years. Moreover, the long duration of the post of "Project Manager" is not consistent with the composition of the team. The remaining posts of internationally recruited experts represent one month in 1973, two months in 1974, five months in 1975 and two months in 1976.

/...

(f) Personnel

The proposed duration of the project for four years period seems somewhat exaggerated. The objectives of the project may justify the continuation of UN assistance in setting up a water policy unit, in strengthening the technical services and in the training field but this does not necessarily justify a UN involvement for a period of four years. The draft does not provide details of the duties for the proposed post of a Project Manager and I am unable to find out why the Government wants this expert for four years. As pointed out above, the long duration of this post vis-a-vis the remaining posts (48 out of 58 man-months) is also not consistent with the composition of the team. Therefore, the designation of a "Project Manager" in this case is misleading, especially when he is expected to be by himself most of the time. Perhaps a new title should be assigned to the post to reflect true functions and requirements of the post. In this connection I would wish to suggest that the post should carry a substantive title in addition to "Senior Adviser." The duties of the Senior Adviser should include inter alia, experience in planning and development of water resources and should not be limited to drilling experience. Draft job descriptions for the Socioeconomist and the Geophysicist should also be included in the document.

(g) Sub-contracts

This component consists of two experts each for one year's duration in addition to 36 man-months for a Hydrogeologist together with six 12 months of consultants. Terms of reference for each of these posts need to be determined and included in the document. However, I am not fully convinced of the need for all these experts nor the duration of each post. The question is whether or not we should subcontract this element. I am not sure of the reasons for dividing the expert element between item 1 "international staff" and item 2 "sub-contracts" on page 14.

Page 15 does not indicate which equipment should be provided by the United Nations and which should be ~~included~~ ^{provided by} in the sub-contracts. The \$70,000 suggested for equipment at the top of page 15 seems to be included in the sub-contract itself. If so then a lower amount should be allocated since the quotations in the draft reflect prices for new equipment.

Meanwhile, the \$18,000 should be put in the miscellaneous component of the project rather than in the sub-contract section. Moreover, specifications for each item under the \$45,000 are needed to obviate future misinterpretation, if this component is intended to be included in a contract. While item "a" under sub-contract shows a total of \$300,000 (page 15), the Project Budget shows \$277,100.

It seems that the Government is not sure as to the need for item (c) page 15 "Environmental Isotope Studies." Your advice and recommendations on this matter would be appreciated.

I might add that definition of major tasks to be performed under each contract should be prepared at this stage in order to include it in the document.

(h) Training

As regards items "c" Logging Techniques and "d" Data Collection and Processing, which correspond to general administrative requirements (although I realize they might relate to water resources), I suppose that the possibility of arranging such training at the Institute of Public Administration at Khartoum should be considered. Similar arrangements should also be made at our Project SUDAN:42- Strengthening the Topographical Survey Division, for the training of the Cartographer.

(i) Equipment

I do not see justification for the purchase of five vehicles for project use (item (a) 4 page 16) since the proposal involves only one expert continuously staying in the project. One sedan vehicle for the use of the Senior Adviser and Consultant would be supported. However, justifications should be provided for other vehicles.

Finally, I would definitely recommend a mid-term review of the project on which occasion possible shifting of emphasis in project objectives and targets might be considered.

AK
Drafted: A. Khuzayim:ci
Signed by: S. Albuquerque

c.c. Mr. RECORDS CONTROL
Mr. Johannesson

ORIGINAL DIRECT

FEB - 1 1973

TE 432/21 Sudan (3-1)

18 January 1973

Dear Mr. Cappelletti,

SUDAN: Ground Water Department Adviser - SUD/68/001

We were somewhat surprised to receive Mr. Guijt's letter of 7 December 1972 with which he enclosed a Project Document for yet another extension of the services of Mr. Zander, the incumbent OPAS expert. The request, signed by the Government, aims at establishing a new advisory post to allow Mr. Zander to continue in Sudan for another year.

As promised in our cable No. 17 this letter is intended to convey our preliminary reaction to this request for which no explanation or justification is given either in the project document or in the covering letter.

As you know Mr. Zander has already served more than six years in Sudan and at the time of the request for his last extension, Mr. Renart advised in his letter of 9 October 1971 to UNDP that:

- (a) the extension would be for one year;
- (b) the original objectives of this post have been met;
- (c) the Government considers the three local counterparts as competent and that they should succeed the expert; and
- (d) the Drilling Instructor (Mechanics) will relieve Mr. Zander from problems connected with equipment supply and maintenance.

.....
On these assumptions we supported the Government's request of last year for a one-year extension of the services of Mr. Zander even though this meant an exception to the five-year ceiling on an expert's services in a given assignment, a ceiling laid down by the Technical Assistance Committee, an Intergovernmental body. As you noted from our memorandum of 1 November 1971 to UNDP, copy attached, we made clear our understanding that only one more year of this expert's services would be needed to allow smooth transfer of responsibilities to one of the three designated Sudanese counterparts. Meanwhile, UNDP in their memorandum of 16 February 1972, had noted that "since the counterpart has already acquired expertise and experience while working with Mr. Zander, it may be possible to withdraw Mr. Zander as scheduled, before the return home of the Sudanese official."

Mr. L. Cappelletti
UNDP Resident Representative
P.O. Box 913
Khartoum, Sudan

Indeed, Mr. Hanafi the assistant most likely to replace Mr. Zander has completed his UN fellowship and returned to Sudan last December. Another assistant is expected to complete his UN fellowship during next summer.

In reply to the above UNDP memorandum we stated the following in our memorandum of 1 June 1972:

"As regards replacing our expert, Mr. Zander, by a Sudanese national, we will maintain that training of his counterparts, whether in fellowship status or on the job, is proceeding satisfactorily. Moreover, if the Government wants to replace Mr. Zander by Mr. Hanafi, this could be achieved next February at the expiration of the contract of Mr. Zander. Mr. Hanafi is expected to complete his fellowship award next December."

Now that Mr. Hanafi has satisfactorily completed his training abroad and has returned, and in the light of the above comments from Mr. Renart, UNDP and the United Nations, we have no basis really for supporting a further continuation of Mr. Zander's services in Sudan.

Although we see some merit in having a United Nations expert with advisory rather than OPAS status during the first few months after takeover, in our experience, retaining the OPAS expert in an advisory capacity might inhibit an effective take-over since the national appointee may not feel free to take full control and responsibility with his UN predecessor still actively around. Moreover, the job description calls for, inter alia, introduction of new drilling techniques. This implicitly requires another expert since Mr. Zander has had the opportunity to do this for more than six years and if this is really needed as well as some advisory shoring up of the Sudanese replacement, we might be prepared to consider supporting a request for a new advisory expert. There would be little point, however, in appointing anyone new for less than a year. We would moreover, want to know why necessary assistance could not be provided by the related project for training of drillers (SUD 68/1) where Mr. Tupas is now engaged under a similar OPAS arrangement since 1969 and through September 1974 and also Mr. Tejpal who started last September his two-year advisory assignment.

We should very much like to have your appreciation of the situation and your recommendations taking into account the points made in this letter. If you consider it advisable, we are prepared to support a two to three months extension of Mr. Zander's services but in an advisory capacity. At the same time, I would wish to mention that we appreciate the work of Mr. Zander in Sudan and that our above comments do not reflect upon his performance with which we are very well satisfied. In addition we are trying, with our colleagues at Headquarters, to find a suitable place for Mr. Zander under a United Nations assignment outside the Sudan.

/...

Finally, since there is a likelihood of a large scale water resources planning and development project being requested, (page 39-40 of draft country programme) we want to start looking immediately for a project manager/coordinator/team leader which we assume will be needed. Therefore, we requested you in our cable No. 17 to urge the Government for an early submission of the Project Document and or a job description for the post so that we can start our search for a suitable candidate.

Yours sincerely,



Sheila Albuquerque
Chief

Section for Africa
Office of Technical Co-operation

REGISTRY FILE COPY

DRAFTER: _____

FILE No: *TE 432/21 Sudan (3-1)*

Q23 NY TU 16 2303Z =

LTF

UNDEVPRO

KHARTOUM =

17 CAPPELLETTI YOUR TWELVE AAA POUCHING EIGHTEENTH JANUARY OUR

PLY EXPLAINING RESERVATIONS CONCERNING EXTENSION ZANDER INVIEW

PAST EXPRESSED UNDP AND UN VIEWS REGARDING FURTHER EXTENSION THIS POST.

BBB APPRECIATE YOU SEND EITHER DRAFT PRODOC OR JOB DESCRIPTION

NEW PROJECT WATER RESOURCES ITEM SEVENTYFOUR DRAFT COUNTRY PROGRAMME

TO ENABLE US INITIAOB RZCRUIHMDNOHSG

ENABLE US INITIATE RECRUITMENT SOONEST

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TE432/21 SUDAN (3-1)

UN12 ALBUQUERQUE REYOUR 9 VERY DISAPPOINTED WITH DELAY
REQUEST EXTENSION ZANDER ASSIGNMENT EXPIRING 11 FEBRUARY
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UNITED NATIONS
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DEVELOPMENT PROGRAMME



برنامج التنمية التابع
للامم المتحدة
RECORDS CONTROL

OFFICE OF THE RESIDENT REPRESENTATIVE
P. O. Box 913, KHARTOUM

FEB - 9 1973

TE 432/21 (SUDAN
3-1)

CABLES : "UNDEVPRO" KHARTOUM
TEL. Nos. 73121 - 73123 - 73124 - 73125

DATE : 11 January 1973
REF. : PROG/73/029

SUD/72/003

Déar Miss Albuquerque,

Subject: Groundwater Project - SUD/72/003/A/01/01

.....
Please refer to your cable No. 432 dated 10 November 1972 and your letter No. TE 432/21 Sudan (3-1) dated 17 April 1972, to Mr. Zander on the above subject. As you know an amount of \$620,000 has been included in our draft country programme for this project. This was based on a preliminary draft project document produced in cooperation between the Groundwater Department in the Ministry of Natural Resources (earlier Ministry of Cooperatives & Rural Development), and Mr. Dijon, during his latest mission. Since then the project document has, within the Government, been subject to revision, and in its present form it reflects the latest thinking of the Government on the matter. I attach 2 copies of the project document.

I have little to add to the background information, presented in the document. There is in my opinion an urgent need to consolidate the results of the Freedom from Thirst Campaign, for which the Government spent considerable amounts in recent years, and to which UNDP has contributed in its project SUD/68/001. The emphasis in the past years has been on the drilling of wells, throughout the country, in accordance to the most urgently felt needs. However, little was done to systematically assess the country's groundwater resources, and to develop a coherent policy for their exploitation. This is the first objective of this project. Furthermore, there has been considerable waste in the past, as the drilling was too little based on proper geological exploration. The project also intends to improve this. In the third place little attention has been given to the maintenance of the wells which have been drilled. The project aims at initiating a better maintenance system.

Considering the importance of groundwater as a resource for the country, the Government is for all these reasons, in my opinion, right in giving this project now priority in the programme. I support it strongly.

I have evidence that the Government approves the project in its present form. Before inviting the Government now to endorse it formally by signing the document, I would appreciate to hear from you, whether you would like to see changes made in the document. By copy of this letter I am also asking Mr. Makiedo, if he wants to make comments at this stage.

Yours sincerely,

L. Cappelletti
L. Cappelletti
Resident Representative

cc Fano with attachment - 8/2/73
W F
Miss Sheila Albuquerque
Chief, Section for Africa
UNOTC/New York

c.c. Mr. S. Makiedo, Ass. Adm. & Director
Regional Bureau for Europe, Mediterranean and the Middle East
UNDP/New York.

BULK ENCLOSURE
FILED SEPARATELY

ORIGINAL DIRECT

RECORDS CONTROE

RD/sz

JAN 10 1973

Miss S. Albuquerque, Chief
Section for Africa, OTC

4 January 1973

TE 432/2 SUDAN

(3-1)

Mr. Joseph Barnea, Director
Resources and Transport Division

Enzo Fanczy Associate Chief
Water Resources Section, RTD

SUDAN: Deputy Director Ground Water Department

Reference is made to Mr. A. Khuzayin's memorandum of 20 December 1972 regarding the SUD/68/1 project document.

Our opinion was expressed in our memorandum of 20 December 1972 (last paragraph). In addition, we do not believe that we could find an expert who would be more qualified than Mr. Zander for this post, taking into account Mr. Zander's knowledge of the local conditions, the Arabic language and his excellent relationship with his counterpart team. We also know that Mr. Zander has spent most of his leave time becoming acquainted with the most modern drilling techniques.

Furthermore, we have no other post for him, at least for the first half of 1973, and we see no reason to lose the services of an expert of this caliber only for a matter of principle, when the Government itself is willing to benefit from his skills.

Therefore, we cannot agree with the proposal to discontinue his services. As far as we are concerned, this would only generate a recruitment problem, cause difficulties with the Sudanese Government and would make us lose a very valuable expert.

The above comments were prepared in consultation with our technical advisers, Mr. R. Dijon and Mr. L. Sanchez.