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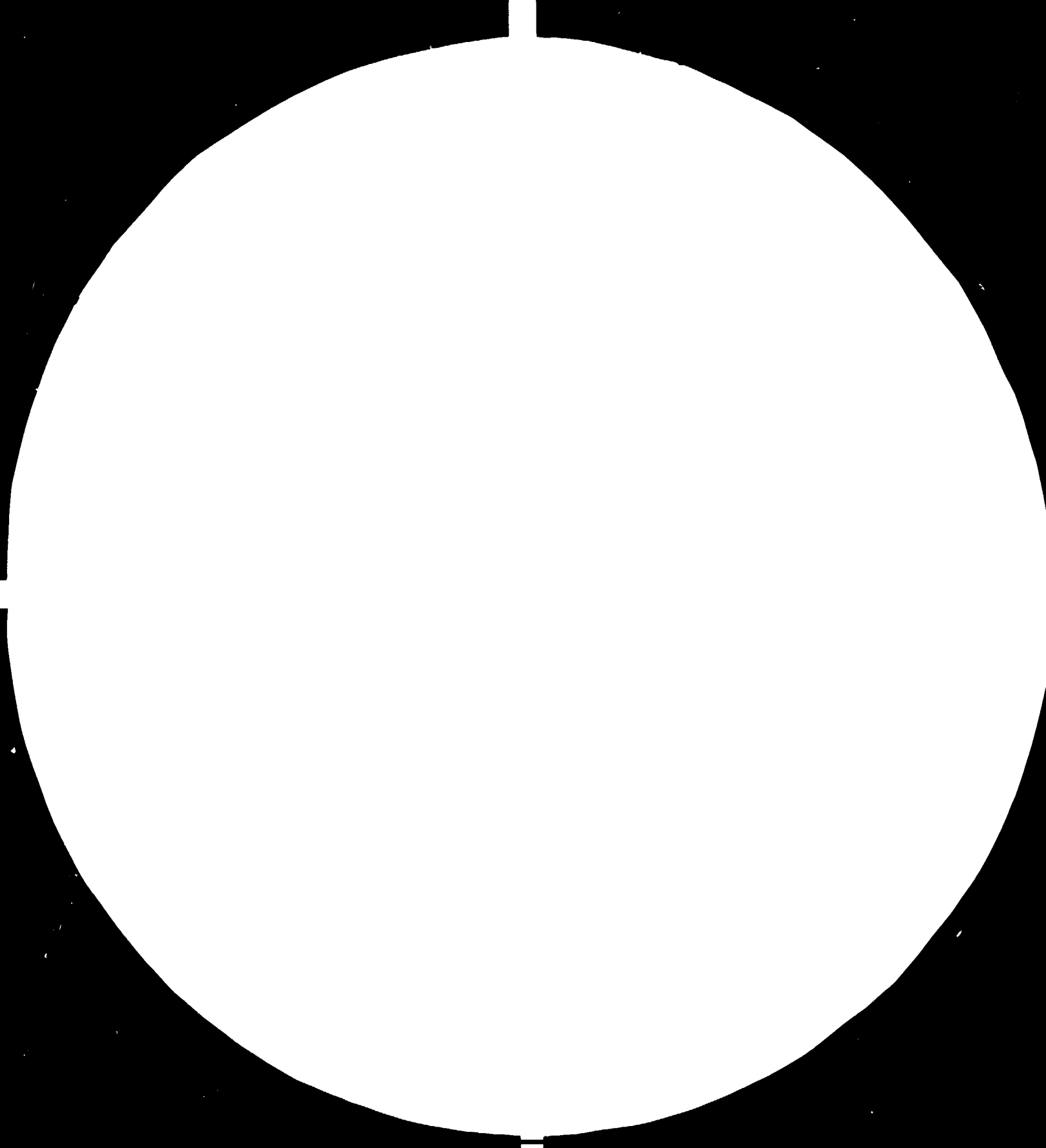
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UNIDO PROJECT US/INT/79/257/11-55-4

SWEDISH FOLLOW-UP ACTIVITIES OCTOBER - DECEMBER 1984.

*Sweden.*

PLANT LEVEL CO-OPERATION FOR THE TRANSFER OF TECHNOLOGY TO  
SMALL SCALE INDUSTRIES WITH PARTICULAR REFERENCE TO THE  
METAL WORKING AND LIGHT ENGINEERING INDUSTRY.

Stockholm 1984-12-10

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2. Follow-up visits to Swedish companies in October 1984

During Mr. Mithat Külürs visit to Sweden October 22-27 1984, visits to and/or meetings with the following Swedish companies where done by Külür and L.H. Sandlund.

1984-10-22

Backer Elektro-Värme AB, Sösdala.  
Co-operation partner: Swarna Electricals,  
Bangalore, India.

Meeting in Malmö with Mr. Jan Hedin, general manager, and Mr. Nils Erik Persson, marketing director.

1984-10-22

Lofab AB (Lofab Square AB), Malmö.  
Co-operation partner: Elmeca Works, Dharwad,  
India.

Meeting at Lofab Plant, Malmö, with Mr. Bengt Ohlsson, general manager and owner of Lofab.

1984-10-23

Kellve, Kjällströms Mekaniska Verkstad AB,  
Kvänum.  
Co-operation partner: Tanta Motors Company,  
Tanta, Egypt and Dynamics Engineering Ltd.,  
Nairobi, Kenya.

Meeting with Mr. Jerker Lärk, general manager of Kellve Conveyor AB and Mr. Bo Lindskog, general manager of Kellve Farm Equipment.

1984-10-23

AB Somas, Säffle.  
Co-operation partner: BDK Valves Priv. Ltd.,  
Hubli, India.

Meeting at Kellves premises, Kvänum with Mr. Göran Andersson, marketing manager of Somas.

1984-10-24

Storebro Bruks AB, Storebro.  
Co-operation partner: Toolcraft, Bangalore, India.

Meeting at Storebro with Mr. Roy Ivarsson, general manager, and Mr. Lars Termén, export manager of Storebro Bruks AB and Mr. B.R. Shivashankar, Toolcraft.

1984-10-25

Westlings Sägbladsfabrik AB, Vansbro.  
Co-operation partner: Indo Hacks Ltd., Hyderabad, India.

Meeting at Swedfund office in Stockholm with Mr. Mats Elfsberg, Westlings, and Mr. V.P. Rao, Indo Hacks and P. Das, State Bank of India, Bombay. Partly participating at this meeting was also Mr. Ashok Nehru, resident representative of Swedfund in New Dehli, India and Mr. Lars Liljeson, regional manager at Swedfund.

1984-10-26

Continuation of meeting with Indo Hacks at Sandlund's office in Stockholm.  
Summary of meetings and planning of follow-up activities by Külür and Sandlund.

## 3. Notes on project status.

Comments and recommendations for UNIDO follow-up activities.BACKER ELEKTRO-VÄRME AB - SWARNA ELECTRICALS

The meeting with Mr. Jan Hedin and Mr. Nils Erik Persson of Backer indicated once again that the proposed co-operation with Swarna is of strategic interest to Backer. Backer are convinced that the competition from producers in low-cost countries will be very hard within the next 5-10 years. During the last 2-3 years, Backer has therefore been looking for partners in suitable countries. UNIDO's proposal to discuss co-operation and technology transfer to Swarna was therefore immediately positively received by Backer.

From telephone conversations I have had with Mr. Hedin after our meeting October 22 I have understood that Backer has a similar technology transfer/venture project going on with a company in People's Republic China. This also means that the necessary documentation etc which Backer must provide Swarna with must anyhow be prepared by Backer for use in the China project. It also means that Backer must reserve proper management capacity to handle the relations with both the Chinese and Indian project. Hedin's and Backer's interest for a venture project with an Indian company was in fact so strong that he indicated that if any problems occurred with getting the co-operation with Swarna started, he would actively look for another partner for a venture on the Indian market. I even got the impression that he had an alternative contact to Swarna in case problems should occur with the Swarna venture.

Mr. Hedin also told us about his visit to Swarna in India during spring 1984. He had the impression that Swarna's



present premises where too small. They need better and larger production premises if they shall be able to cope with the new situation which a co-operation with Backer will lead to. Hedin also emphasised that Swarna will need a larger and better educated work force.

Mr. Persson also mentioned that he had heard from the Swedish company Kanthal that Swarna had ordered machines for production of so called tube elements. He said that even if Kanthal can supply the machines, they can not supply the special know-how on how these machines shall be efficiently used. This type of know-how together with the know-how on how to effectively plan the production flow for various kinds of heating elements is in the possession of Backer (and similar companies).

Backer has offered Swarna both training of Swarna personnel at Backer's plant in Sweden and used machines that can up grade Swarna's production equipment. So far, no machines have been transferred to Swarna and no training have taken place. From Mr. Hedin I have understood that Backer thinks that it is vital that Swarna gets better production equipment before actual training of Swarna personnel starts at Backer. Better equipment is also a prerequisite for discussions of by-back arrangements. Backer is very interested in including by-back clauses in the future co-operation agreement.

Hedin also underlined that Backer wants to send at least one representative to Swarna to help them with planning of their production facilities. If such a visit to Swarna is done by a manager at Backer which will be involved in the future training programme of Swarna employees, I recommend that such a visit will be the first step in a future co-operation. Through this man, Backer will get a in-depth knowledge about the technical status of Swarna and it will facilitate Backer's preparations for training of Swarna people. Through this man, Swarna will also get

detailed advice on how to use their present production equipment and which additional equipment that is needed. Since the financing of such a visit by a Backer representative can be difficult to solve, I recommend that UNIDO provide Swarna with funds to cover such costs. I estimate that such an initial visit to Swarna by a Backer production manager shall last for two weeks. The cost for Backer to send a man to Swarna during two weeks will be around \$3500 (including salary, expences, air ticket).

Since Backer's interest in this project has a strong strategic foundation it is my recommendation that UNIDO promotes some kind of venture agreement where Backer gets a certain share either of the present Swarna company or in a newly established joint venture company Swarna-Backer. Such an agreement will undoubtedly lead to a more long-term view on the co-operation from Backer's side. Hopefully it will also facilitate discussions on by-back orders of heating elements to be marketed by Backer on the European and other markets. Such by-back agreements will also motivate Backer to continuesly provide the joint venture company in India with the latest technology available to Backer.

I also recommend that UNIDO makes it very clear to Swarna that a more prompt handling of the letter and telex communications with Backer is necessary. My contacts with Mr. Hedin and Persson of Backer of the last two years have clearly indicated that they have been very unsatisfied with the speed with which Swarna have handled correspondence from Backer. If necessary, I recommend that UNIDO ensures that Swarna gets proper assistance from Indian authorities in handling the correspondence and negotiations with Backer. As mentioned above, I have the impression that Mr. Hedin and Backer has contacts with other Indian companies. This makes it necessary

for Swarna to close the deal with Backer fairly quickly in order to stop Backer from losing interest in Swarna as their Indian partner.

Ownership of Backer. Backer is owned by a Swedish private person. Mr. Hedin and other top managers have no ownership interest in Backer. During a few years after 1980 Backer has been a subsidiary within the Swedish AGA-group but is now privately owned again.

LOFAB AB - ELMECA WORKS

Mr. Bengt Ohlsson, owner of Lofab and its general manager, gave us his opinion on the current situation of the relations between Lofab and Elmecca.

A contract concerning a transfer of technology for Lofab's LOFLEX Tool Holding System was signed already in April 1983. This agreement stated that Lofab should supply Elmecca with drawings and technical specifications needed for production at Elmecca of the Loflex system. It was also agreed that Elmecca should purchase from Lofab a key component (a patented screw). It was agreed that Elmecca should pay Lofab a lump-sum at the delivery of the drawings. No royalty should be paid to Lofab since a prerequisite for the agreement was that the Elmecca should buy the key component from Lofab. According to Mr. Ohlsson, Elmecca had as per our meeting not yet paid the lump-sum (the drawings have since long been delivered) and Elmecca has not yet ordered any patented screws. Mr. Ohlsson was very concerned about this fact and asked Mr. Külür to investigate during his forthcoming visit to India the status of Elmecca's product planning. Mr. Ohlsson was also afraid that Elmecca has succeeded in producing the key component themselves and therefore has not ordered any screws from Lofab. It is certainly important that UNIDO finds out whether this is the case and discusses the matter with Elmecca if necessary. Elmecca has also tried to purchase used machinery from Sweden through Lofab. Lofab has also offered used equipment from their own plant and also some used machinery from Swedish equipment dealers. Ohlsson told us that Elmecca had asked him for used equipment that, in his opinion, were too advanced for their needs. They wanted unnecessary qualified machinery which requires advanced maintenance and spare parts which might not be readily available in India. At least for the production of

the Loflex system, Elmeca can do good with equipment of less sophistication than that which Elmeca has asked for. Another problem is that used equipment in Sweden normally are for sale during a very short period (some weeks). During this short time, Elmeca has so far not been able to decide and also get all the necessary governmental permits for import of the equipment. Ohlsson suggested that we should talk to Storebro Bruk regarding a direct offer from them to Elmeca on used machinery. Could it maybe be possible to arrange a purchase of lathes for Elmeca with delivery from Storebro via Toolcraft?

When the drawings for the Loflex system were delivered by Lofab to Elmeca around September 1983, Lofab also enclosed free of charge drawings of an older tool-holder system. The idea was that Elmeca should produce a prototype of this older tool-holder and send it to Lofab. Lofab should then evaluate the possibilities to market these products in Europe. However, Lofab's evaluation of Elmeca's prototype has shown that it does not meet necessary quality standards. Lofab has considered to market 2 different quality standards of tool-holders. Lofab contacts with potential customers have shown that the market will not accept a quality where accuracy to size is less than Lofab's existing quality. This is the same even if the tool-holder technology is not the absolute latest. Ohlsson also underlined that the major problem with the prototype sent to Lofab from Elmeca was its bad accuracy to size.

This indicates of course that transfer of technology is necessary and Lofab are also prepared to train Elmeca's personnel in finishing technology. However, this is also largely a problem connected with production in proper equipment. While discussing this matter, we

agreed that a solution might be that Elmeca starts production of semi-finished goods where the final finishing work is done by Lofab. If such a solution is possible, it will give room for fairly large orders from Lofab to Elmeca. For production in India of "older" products where price competition on Lofab's existing markets (mainly Europe) is very tough. Through cost-effective production in India, Lofab can continue to market these products and stay competitive. It will definitely require that Lofab will undertake training of Elmeca employees and also send a production manager to Elmeca in order to assist in production planning of the products to delivered to Lofab. Such a training program should be planned in connection with the transfer of know-how and training program for the Loflex system.

Ohlsson also said that the sometimes bad communications between Lofab and Elmeca was to a large extent due to Lofab's unexperience of handling this type of projects and partly also due to the fact that Lofab's organisation is running at full speed. We recommended Mr. Ohlsson to engage an... experienced production manager, maybe on a consultancy basis, and let him handle some of the production management at Lofab's plant while Mr. Ohlsson and his production manager can handle the contacts with Elmeca. Mr. Ohlsson had already taken contact with some persons he knew and who could be of interest to hire for this job.

UNIDO's follow-up activities in this project can hopefully be limited to active contacts with both Elmeca and Lofab in order to ensure that correspondence and communications are handled properly and assist them with advice on how their co-operation can be constructed. I think it is important that Mr. Ohlsson visits Elmeca in India as soon as possible so that he can get a on-site impression of Elmeca's production equipment, etc. Such a trip can hopefully be

financed jointly by Lofab and Elmeca.

Another critical input from UNIDO can maybe be to finance at least part of the costs for sending a finishing expert from Elmeca for training at Lofab's plant at Malmö. In this type of technology, finishing is of prime importance. The sooner Elmeca will get better capabilities of handling the finishing of the products, the better their possibilities will be to deliver complete products for sale through Lofab or throught other channels on export markets.

KELLVE, KJÄLLSTRÖMS MEKNISKA VERKSTAD AB - DYNAMICS ENGINEERING LTD.

At the meeting with Kellve October 23, the company was represented by Mr. Jerker Lärk and Mr. Bo Lindskog. Partly participating where also Mr. Anders Lindahl, who previously had handled the contacts with UNIDO and coordinating agency.

Mr. Bo Lindskog gave us a brief presentation of the recent re-organization of the Kellve company. Effective November 1, 1984, Kellve will be divided into two separate companies. Kellve Conveyor AB with Mr. Jerker Lärk as managing director will specialize in production and marketing of conveyor products. Mr. Lärk is the former production manager at Kellve.

Kellve Farm Equipment (formal name to be decided later), with Mr. Bo Lindskog as general manager, shall concentrate on the Kellve Farm Equipment, mainly the front loaders. Mr. Anders Lindahl will leave Kellve at the end of December 1984 for Svedala-Arbrå AB. In May 1983, Mr. P. Lad of Dynamics together with Mr. Kiiru, ministry of industry in Kenya, visited Kellve in Sweden. They met with Mr. Bo Lindskog, Mr. Anders Lindahl and Mr. Henry Claesson, administration manager of Kellve. Mr. Claesson has previous experience from starting up so called "sister industries" in Tanzania. He is therefore well aware of the problems involved in co-operation between Swedish companies in possession of technology and transfer of this technology to especially African countries (Mr. Claesson's experience from Tanzania dates back to his activities before joining Kellve).

Most recent development in the project is that Mr. Lad of Dynamics has left the company. The new responsible manager at Dynamics is Mr. Chana.

Kellve has drafted an agreement between Kellve and Dynamics. This has been sent to UNIDO in May 1984. The agreement states that Dynamics shall try to introduce conveyor equipment produced in Sweden and shipped to Kenya in a knocked-down fashion.



Final assembly shall be undertaken by Dynamics. This shall be the first step in a project leading to complete transfer of Kellve's conveyor technology to Dynamics.

Since Mr. Lad now has left Dynamics, Kellve thinks it is vital that Mr. Chana visits Kellve as soon as possible so that the negotiations can be resumed. Mr. Lärk, the new general manager of the separate conveyor company, seems to be interested in continuing the contacts and negotiations with Dynamics. He is also interested in visiting Dynamics in Kenya as soon as possible to get a on-site impression of Dynamics production facilities. They would prefer if UNIDO can convince Mr. Chana to come to Sweden before the end of 1984 so that Mr. Lärk can visit Kenya in January-February 1985.

Since Mr. Chana at his previous visit to Kellve indicated that some larger construction project was coming up in Kenya, Kellve are interested in getting the co-operation with Dynamics going so that the two companies jointly can direct their market efforts to these projects. Mr. Lärk also emphasised that it is much easier to solve practical problems if both partners are under certain pressure from a business contract.

Conveyor Technology is mostly design know-how, material selection know-how and velding technology. Kellve's procedures are fairly standardized and they do not foresee any problems with transferring that know-how to Dynamics employees. This transfer can either be done through training of Dynamics people at Kellve's plant in Sweden, or through training through a experienced Kellve manager at Dynamics plant in Nairobi. Key components, such as the transmission gear box, can be produced and delivered from Sweden during the initial stages of the co-operation.

Due to shifts of responsible manager both at Dynamics and Kellve, communications and contacts between the two companies has suffered a bit and another round of negotiations is necessary before the co-operation can get started. I recommend UNIDO to promote a visit by Mr. Chana to Kellve as soon as possible. Recent contacts with Mr. Lärk indicates that Kellve Conveyor AB is still interested in getting a co-operation with Dynamics going. A technical problem is maybe to adapt Kellve's drawings of the conveyors, which is based on square profiles, to profiles of L- or U-form which is more readily available in Kenya. Dynamics has shown interest in purchasing square profile from or via Kellve in order to be able to locally produce intermediate sections of the conveyor systems. These sections are not technically complicated at all but will be very bulky to transport from Sweden. If square profiles can not be imported to Kenya, an adaptation of their construction will be necessary.

During Mr. Lärk's visit to Dynamics, one of his major tasks will be to evaluate the Kenyan market for conveyor of various types and also evaluate the export possibilities for conveyors produced at Dynamics to other markets around Africa. I recommend UNIDO to make it clear to Mr. Chana of Dynamics that such a market evaluation is essential in order to maintain Kellve's active interest in starting a co-operation. Such a co-operation can probably lead also to a joint venture company but, according to Mr. Lärk, such discussions must wait until Kellve knows more about Dynamics present situation and the marketing possibilities.

KELLVE, KJÄLLSTRÖMS MEKANISKA VERKSTAD AB - TANTA MOTORS COMPANY

For presentation of Kellve as a company and its representatives during our visit see under project Kellve - Dynamics.

Bo Lindskog informed us on Kellve's views on the proposed co-operation with Tanta.

He made it clear that Kellve are not interested in a joint venture agreement involving financial investments by Kellve in Egypt. Kellve can however consider an involvement in a joint venture company where the contribution from Kellve is in the form of know-how, drawings, training, etc.

Mr. Lindskog also said that the recent development in front loader technology in Sweden has led to mechanical constructions which has a unnecessary high technology for the Egyptian market. His opinion was also that it is sometimes unnecessary high even for the Swedish market. Recent development within the farm tractor field has also led to that Kellve has been forced to increase its product program with custom-made front loaders to almost every type of farm-tractor model. Previously they could use the same type of front loader for many farm tractors simply by using different mounting frames. Mr. Lindskog was convinced that this slightly older technology could still be used in countries like Egypt.

Such a more standardized program will also facilitize maintenance and keeping spare parts in stock. Kellve is interested in discussing supply of knocked-down equipment from Sweden and provide Tanta with know-how, fixtures, training etc so that Tanta can assemble the front loaders in Egypt. In later stages it is the intention that Kellve shall provide only key components such as hydraulic cylinders, oil pressure units, etc and assist Tanta with training and technical advise on a continous basis.

During the meeting Mr. Bo Lindskog promised that he immediately should contact Mr. Freikha of Tanta Motors, in order to resume the contact and give Tanta Kellve's reactions on the contract proposal previously submitted to Kellve by Tanta. After our visit to Kellve October 23, I have heard that Mr. Lindskog probably will leave Kellve at the end of 1984. This will bring further complications to the discussions between Tanta and Kellve on transfer of know-how for the front loaders.

However, Kellve are also interested in discussing with Tanta on a co-operation concerning production in Egypt of conveyor products. Mr. Lärk indicated that local production of some of Kellve's conveyors in Egypt could be of great interest to Kellve in order to strengthen their marketing position. Mr. Lärk has indicated that he wants to visit Mr. Freikha in connection with a forthcoming visit to Dynamics in Nairobi. A co-operation between Tanta and Kellve for production of conveyor equipment in Egypt can certainly be a good start of the build up of a future business relation between Tanta and Kellve. As soon as Kellve Farm Equipment Company has solved their possible future management problems, the front loader project can be taken up again.

I recommend that UNIDO makes sure that Mr. Henry Claesson, administrative manager at Kellve, will be involved, together with Mr. Lärk, in future discussions with both Dynamics and Tanta. Claesson's experience from handling contacts with African company will be a great asset during the future contract discussions and carry-out of technology transfer. Claesson also has excellent knowledge of the SIDA organization in Sweden.

AB SOMAS - BDK VALVES PVT LTD.

The meeting with Mr. Göran Andersson, marketing manager of Somas, took place at Kellve's premises at Kvänum since Külür and Sandlund had no time to travel all the way up to Somas plant at Säffle. Instead, Mr. Andersson came down to see us at Kvänum.

During spring 1984, Mr. Ladha of BDK Valves, visited Somas in Säffle to continue the discussion regarding a transfer of technology for a certain type of valve produced by Somas. The co-operation should be set up in three steps, starting with direct import by BDK of valves from Somas to be marketed on the Indian market. This marketing should also be an estimation of the market potential for the Somas technology on the Indian market. During the time after the initial meeting in Malmö, April 1983, BDK has been very active in preparing for the introduction of the Somas range of products on the Indian market and also preparing for production of these products in BDK's facilities in India.

Unfortunately, these last two years has also been very busy for the relatively small Swedish company Somas. Due to very heavy demand for their products from especially the paper- and pulp industry all over the world, they have felt that their managerial capacity is too limited to handle also a start-up of a co-operation with BDK. This fact has been obvious in their reactions to proposals etc from BDK. In a letter dated July 1984, Mr. Andersson of Somas informed BDK that Somas could not see any possibilities to enter into any kind of co-operation involving technology transfer for production of Somas products in India. Somas offered BDK to be their agent in India.

This message from Somas was certainly a severe draw-back since they have really put in a lot of resources to prepare for a future co-operation with Somas.

In a letter dated August 1984, Mr. Ladha of BDK is trying to convince Somas that a transfer of their technology can be undertaken without a lot of managerial input from Somas side. BDK indicates that they are prepared to pay for this know-how with fixed fees and/or royalties and also agree on the import of certain components and/or complete products during an agreed period. In a letter to UNIDO dated September 1984, BDK also asks UNIDO for active assistance in convincing Somas that the co-operation and technology transfer to BDK can be profitable for Somas. Up to our meeting with Mr. Andersson of Somas on October 23, Somas had not yet answered the letters from BDK mentioned above.

During the meeting with Mr. Andersson it was clear that Somas had very much lost interest in continuing discussions with BDK. The reasons for this is hard to say. It might be that Somas entered this project in order to learn more about the Indian market and evaluate potential future competition from Indian valve manufacturers. It might also be that Somas official explanation is true. This is that Somas is a fairly small company and that they presently are heavily over-loaded with work. Therefore they have absolutely no possibilities to handle a co-operation project with BDK or any other foreign partner for that matter. They do foresee a slow-down of the market demand after 1985 but up until that time they have no resources to handle this project. Somas has also from the beginning suggested that BDK should start with selling the Somas special products on the Indian market in order to evaluate the marketing possibilities. BDK has answered with proposals that they shall start with immediate production of the products at their facilities in India. I have the feeling that Somas are a bit afraid of this, since this will give them no time to evaluate the risk of transferring their special know-how to a qualified producer in a low-cost country.

It is also obvious that Mr. Ladha's leaving of BDK has been negative for Somas interest on having continued contact with BDK.

In order to save the project and keep the relations between Somas and BDK going we discussed some alternatives. The first was that Somas, BDK and Swedfund (Mr. Ashok Nehru, Swedfund's representative in India, is informed of the project) should jointly do a feasibility study seeking answers on how a production in Inda could be started where Somas are actively involved on a joint venture basis. Such a feasibility study and following negotiations will approximately take between 6 and 12 months. Hopefully Somas will have better managerial capacity after such a period. This plan requires that Swedfund is positive to an involvement in this project.

In case Swedfund is not interested, we discussed an alternative where Somas will supply drawings and provide training for a fixed price paid by BDK. Such a deal should also involve supply of key elements from Somas.

In a letter to UNIDO dated November 1984, Mr. Andersson of Somas reports that he has discussed the alternatives above and reviewed the relations between Somas and BDK with the general manager and owner of Somas Mr. Ulf Hägg. With reference to the "new political situation in India", Somas has decided to stay away from the Indian market for some years. Somas also says that they find it of no value to try to find a solution on their relation with BDK within the next year.

My opinion is that it will be very difficult to convince Somas that they shall re-enter into the negotiations with BDK. For some time they have been on their way to withdraw from the project and the domestic political troubles in India in November gave Somas a suitable excuse for their complete withdrawal. This is sad, especially

since BDK is among the companies in this project who has devoted most of their time and efforts to prepare for a future co-operation with a Swedish counterpart.

During the matching procedure undertaken by the coordinating agency in Sweden, contacts were made with alternative Swedish counterparts in possession of valve technology. It is my recommendation that UNIDO once again reviews BDK's technology needs. Based on such a reassessment, I would recommend that we make a second effort in trying to find a suitable alternative co-operation partner in Sweden in possession of technology of interest to BDK. Much of the material worked out by BDK (such as market evaluations, contract drafts, etc) can be used in such contacts. It will therefore be much easier to promote contacts between BDK and such alternative co-operation partner. I am prepared to assist in the selection of a suitable Swedish company.



STOREBRO BRUKS AB - TOOLCRAFT

The meeting at Storebro Bruk October 24 was planned so that we could meet both with Mr. Ivarsson and Mr. Termén from Storebro and with Mr. Shivashankar of Toolcraft. He visited Sweden and Storebro in order to try to finalize the co-operation agreement between his company and Storebro.

During the meeting, it was clear to us that the main content of the co-operation agreement between Storebro and Toolcraft where ready. The following remained to be discussed during the meeting:

- Initial order of knocked-down lathes of Storebro model 260 CNC.
- Certain taxation issues.
- Training program for Toolcraft employees at Storebro.

The initial order of 260 CNC-lathes is considered important by Storebro since it will both give Toolcraft a possibility to start the introduction of the model on the Indian market immediately and also be used as instruction units for the employees that shall handle the marketing and production in the future.

Mr. Shivashankar said that he was unable to place an initial order of 10 lathes, which were requested by Storebro. His main argument was that Toolcraft could not afford to finance such a large stock of lathes in case it should take some time to get them sold. The discussions ended with an agreement that Toolcraft will place an initial order of 5 lathes with Storebro. The machines will be delivered with 3 in the first shipment and the next 2 on Toolcraft's request. These orders as well as the agreement as a whole, are subject to approval by the Indian authorities.

The draft of the co-operation agreement had not yet been fully reviewed by Mr. Ivarsson of Storebro. He said he was in principle ready to sign the agreement but he wanted to consult his legal adviser before doing so. He also wanted the details of the initial orders and training programme to be properly included in the agreement before signing.

The co-operation agreement aims at transferring enough technology to Toolcraft, making it possible for them to produce complete lathes of the 260 CNC-model within a few years. This certainly requires a training of Toolcraft personnel at Storebro as well as assistance of Storebro production managers at Toolcraft in India. Since the financing of the training program was an obstacle, we discussed a solution where UNIDO could contribute to the financing of the training program and the adaptation of the Storebro technology to Indian conditions. Two alternatives for UNIDO contribution were identified:

- UNIDO can hire employees at Storebro as private persons to undertake the training of Toolcraft personnel at Storebro's plant.
- An alternative is that UNIDO reimburses Storebro (maybe via Toolcraft) for part of the training program costs.

Both companies also asked UNIDO to contribute to cover the costs for lodging, food and expence allowance for the Toolcraft employees that must stay at Storebro during the training program. It was clear that it will be difficult for Toolcraft to finance these types of costs.

Toolcraft agreed to work out a draft of a training program covering four Toolcraft employees for a period of 6 months each.

I estimate Storebro's training program costs to be in range of 28-30 000 US\$ including training supervisors, material, food and lodging, expence allowance for four persons during six months.

Mr. Ivarsson of Storebro also made it clear that Storebro are prepared to discuss import of complete 260 CNC-lathes to Sweden for re-export to Storebro markets over the world, given of course that Toolcraft can offer the right quality, price, etc. In that case, Storebro will stop their own production of the 260 model. If the co-operation works out well, Storebro are prepared to start discussions with Toolcraft very soon of production (or at least local assembly) of more advanced lathes models in India. Ivarsson made it clear that Storebro views the Toolcraft co-operation as a long-term committment from both parties.

I strongly recommend that UNIDO usés part of the remaining project funds to cover the training costs for Toolcraft personnel mentioned above. Both parties are well motivated and prepared to start the co-operation. Financing of the training is now the key obstacle to overcome. Since the training program also will involve certain adaptation of the Swedish technology to Indian conditions, I do recommend a large contribution from UNIDO to cover these costs.

During contacts with Storebro after our meeting October 24, I have learned that the contract have been signed and that Toolcraft have submitted a list of employees who are selected to undergo the training program at Storebro. Storebro has also given Toolcraft an offer of 3+2 lathes as the initial order. Storebro now awaits the necessary bank documents from India before shipping and an official information from UNIDO regarding its contributions to the training program.

WESTLINGS SÄGBLADSFABRIK AB - INDO HACKS LDT.

On October 25 1984, Mr. Mats Elfsberg of Westlings and Mr. V.P. Rao of Indo Hacks had agreed to meet in Stockholm to continue their negotiations on a joint venture for a production of saw blades in India. Mr. Külür and I had agreed with Elfsberg and Rao to participate in their meeting. Mr. P. Das from State Bank of India, Bombay, accompanied Mr. Rao.

As a preparation for this meeting, Mr. Rao had worked out a detailed draft of a co-operation agreement between Westlings and Indo Hacks. This agreement was principally a licence agreement covering transfer of Westlings technology to a manufacturer of segmental saws, circular carbide saws and some more products. Mr. Elfsberg had not seen the draft in advance.

Mr. Rao also presented papers showing that he had incorporated a company in India with a name of M/s Indo Hacks Westling Ltd. This has been done as a preparation for the future joint venture to be agreed between the two companies.

Mr. Rao also presented a market evaluation of the products in question. The report had been prepared by the Indian consulting company Kirloskar Consultants, Pune. Mr. Rao also said that he had got a formal approval from the Indian authorities to start a foreign collaboration. Official documents showing this will soon come, according to Mr. Rao. Formal application for approval/licence to import certain necessary machines has also been filed with the Indian authorities.

During the review of the draft of a licence agreement, Mr. Elfsberg made it clear that Westlings can only provide technology for segmental saw blades.

An important issue is to find out whether a future joint venture shall be launched in the form of a new company or whether Westlings shall be invited as a minority partner in the existing Indo Hacks group. Mr. Rao said that it might be bad use of Indo Hacks existing resources to invest in new machinery only for production of the products covered by the agreement with Westlings. Mr. Elfsberg was not prepared at the meeting to make any statements regarding this.

For the segmental saw blades, Mr. Elfsberg did foresee a production in India with the capacity of around 185 blades per week or 8300 per year. Average price on the European market for this type of saw blades is Sek 890. Average price on the Indian market today are Sek 2000. The difference in price mainly due to very high import duties. Domestic production in India will be covered by these high duties. A market sales price of around 1900-2000 Sek can therefore be anticipated.

Expected project cost (investments in premises, equipment, installation, etc) is US\$ 6 million and another US\$ 2 million as equity capital.

Mr. Elfsberg made it clear that if Westlings shall be prepared to discuss a joint venture with Indo Hacks, the Indian production plant must have the same or better return on investment as Westlings in Sweden. Mr. Rao promised that Indo Hacks will work out an economic analysis of the project with special emphasis on a detailed presentation of capital need and profitability of the venture. This material will be

submitted to Westlings.

Mr. Elfsberg were requested to supply Indo Hacks with a detailed list of equipment etc necessary for the production of the segments (but not the "bodies") in India. Bodies shall be supplied by Westlings during the first phase of the co-operation.

Mr. P. Das also underlined that the Indian authorities can allow maximum 8 % of the turn-over over five years to be paid out to a foreign venture partner in the form of lump-sums, royalties or dividends.

Since Swedfund has been informed about this project from the beginning, Mr. Nehru said that Swedfund is prepared to consider an engagement. He recommended Indo Hacks and Westlings to work out the project in more detail before Swedfund starts their evaluation of it. Before deciding whether to participate or not, Swedfund will require the following:

- A market survey covering intended markets to be penetrated from the Indian plant.
- Investment plan and financial analysis.
- Profitability analysis.
- A formal declaration from Westlings that they are prepared to enter in the venture with share capital.

Nehru recommended that Westlings share shall be over 25 % due to regulations in the Indian company act on majority decisions.

Once the project has reached a more definite stage, Swedfund can consider to administer and also finance some of the analysis mentioned above.

Mr. Elfsberg of Westlings, owner of the company and its general manager, is very interested in starting a production of segmental saw blades in India and also to discuss a participation in a joint venture there. One of the big problems in this project is however that Elfsberg and Westlings has limited managerial resources to handle project like this, whereas Mr. Rao seems to have all the assistance necessary readily available whenever he needs it. Mr. Rao also seems to have many new ventures/projects going on at the same time. I therefore strongly recommend UNIDO to try to find out if someone in Mr. Rao's neighbourhood is directly involved in/responsible for the Westlings project. In the future I think it will be of great importance that Westlings can communicate with someone that has a detailed knowledge of both technical and economic matters in this project.

Even though this project has not yet reached the stage where training program etc is ready, I would recommend UNIDO to set aside resources in the range of US\$ 10-15000. This money shall be used to support future costs for training of Indo Hacks employees at Westlings in Sweden and to cover adaptation of Westlings existing technology to suit Indian conditions. I also recommend UNIDO to be active in the follow-up of the contacts and negotiations between Westlings and Indo Hacks. There is a certain risk that the both parties "talk above the otherone's head" and that misunderstandings will occur. I am convinced that both parties can prosper from a co-operation. At least Westlings are however unexperienced of handling projects like this and thus my recommendation to UNIDO to be active in supporting activities. If Swedfund can be engaged in the project, they will also have a stabilizing effect on the whole project.

1. Project background and activities documented in this report

Mr. L. Håkan Sandlund, author of this report, has been engaged as project manager in this UNIDO project during the time when Scandiaconsult of Sweden were acting as coordinating agency. Scandiaconsult's contract and Sandlund's engagement in this project ended during summer 1983.

Since then, UNIDO has maintained the contact with the Swedish companies involved in the projects identified during previous project stages. During October 1984, UNIDO wanted to send Mr. M. Külür on a follow-up mission to Sweden. To assist him during the meetings with Swedish companies, UNIDO has hired Mr. Sandlund.

The aim of these follow-up meetings were to identify project status, to collect information to be used during planned follow-up mission to recipient countries and to give general advice and act as project promoter to ensure that the technology transfer projects should continue to advance.

The meetings with the Swedish companies took place during the week 22-27 October 1984. During November 1984, Sandlund has had several follow-up contacts with the Swedish companies and with UNIDO.

In this report, brief notes from company meetings and contacts afterwards as well as my recommendations for future follow-up activities from UNIDO is presented.



