2nd Mission Report

1st Competitive Reinforcement Initiative (CRI) of Auto Parts Cluster – Lahore

"Operationalization of Auto Parts Support Centre"

February 16-22, 2019

PUNJAB CLUSTER DEVELOPMENT

Cluster Development Initiative

A way forward for Economic Growth

The CDI is jointly implemented by PSIC and UNIDO

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Executive Summary

Background

To enhance the competence of auto parts cluster in terms of technology upgradation and product diversification, a cluster reinforcement initiative "Operationalization of Auto Parts Support Center" has been initiated. In this regard UNIDO has engaged international experts, who carried out need assessment during their first mission from 21st to 30th November, 2018. During the mission, the experts held a number of consultation sessions and focus group meetings with relevant stakeholders from the public and private sector. As a result, the experts have prepared an assessment report for the auto cluster of Lahore identifying major challenges related to competence vis-à-vis localization potential of auto parts.

Activities During the Second Mission (February 16 – 22, 2019)

UNIDO's int'l expert Mr. Truls Thorstensen carried out 2nd mission to Pakistan from 16th to 22nd February, 2019. The objective of this mission was to share the preliminary findings of the assessment report and corroborate modalities for the development of a business plan for operationalization of APSC. The expert held meetings with cluster companies, and a joint debriefing session with Honourable, Minister for Industries Commerce & Investment Department, Secretary IC&ID and MD-PSIC on February 19, 2019.

Key Findings of the Preliminary Assessment Report

1. Lahore auto parts cluster exhibits strong presence of two-wheeler industry and is mainly competing based on factors of production.
2. Due to basic level competency, of dies/molds and production tooling, the auto parts suppliers can only comply with the requirements of assigned parts (low value-added parts from OEMs).
3. Weaknesses are prevalent at the cluster companies in process of dies/molds production, tooling, specially in reverse engineering and product designing.
4. Volatile market conditions coupled with local supplier's potential at risk due to strong base of international competitors and stringent international standards.

The report highlights substantial opportunities for auto cluster growth due to increasing middle class population segment, investments coming through CPEC and increasing investment interests of global auto players such as Hyundai, Renault, BIAC, Kia, Foton, Changhan, Dongfeng, FAW, Audi, Nissan, and Volkswagen.

The automotive industry can be divided into four levels depending upon the accumulation of competencies. According to this classification, Lahore auto parts cluster is operating at level I and partially at level II – with production of basic parts using conventional technology as depicted under:

In order to move up in the local value chains vis-á-vis to capture the emerging business opportunities resulting from the investments of global automotive players, it is critical to explore the channels of 'Know-How', technology transfer, and organization to organization contacts with the world class companies and institutions. These collaborations are likely to address the existing competency gaps in the cluster and thereby will lead to upgrade the cluster companies to level III and IV for production of advance and dynamic auto parts using advance manufacturing technologies. Corollary, production of medium to high value-added parts, competencies to reverse engineering & product designing, expansion in SME business base, employment creation and positive spillover effects on other industrial clusters.

Business Plan Development for APSC

In order to overcome the challenge of competence gap related to dies/molds and tooling production through operationalization of APSC, the expert deliberated on the option of involving potential foreign partner for transfer of 'Know-How' and local operational and training partners. In addition, the expert provided with a comparison for four countries (Germany, Japan, Korea and China) in terms of advantages and disadvantages of engaging a potential foreign partner from these countries. The opinion prevailed that a potential foreign partner from China will be more attractive for Lahore Auto parts cluster due to strong ties of both countries and availability of desired know-how. The cluster companies during the meetings with the expert highlighted the need to prioritize the areas of technology support

and clear roles and responsibilities of all the potential partners. However, they unanimously stated that the approach of UNIDO for operationalization of APSC is pragmatic and sustainable.

During the joint debriefing session, the expert briefed the participants that APSC was established in 2006 but could not sustain the operations due to various reasons including absence of business and management model. He further said that tidiness of the center found extremely poor and the building and machinery of APSC are in shambles. He presented key findings, as mentioned above, of the report to the participants. The expert explained the types of automotive parts were mentioned as under:

1. Plastic components.
2. Sheet metal parts.
3. Rubber parts.
4. Functional components.
5. Sub-assemblies.
6. Electronic equipment.
7. Casting components.

The participants were also apprised about the OEMs expectations with regards to localization of components vis-á-vis suppliers' competence.

Regarding OEMs it was observed that there is a lack of trust with respect to local supplier's capability to localize complex parts. They believe that local vendors should do joint ventures with international suppliers for direct/ indirect technical assistance to enhance know-how in order to increase localization. The major impediments for localization were also highlighted which includes low production volumes, high standard requirements, Know-how to manufacture complex and hi-tech components (Manufacturing, Die casting / molding), non-availability of quality raw material, unavailability of testing equipment and high import tariffs.

While explaining the competence assessment of 2-3 and 4 wheelers suppliers, it was indicated that specialized machinery is necessary to develop local competencies that will allow the localization of functional parts to increase by adopting the complete process from design to the part along with assistance to manage large investments required for developing such competencies. From the supplier's point of view the factors hindering localization includes lack of OEM interest, complex import tariffs to import raw material, low production volumes, workforce skills & training, requirement of specialized machinery, non-availability

of quality production tooling manufacturers for especially for die casting, and hi tensile strength sheet metal components. Consequently, local vendors are not capitalizing their full potential hence limiting them to manufacture hi-tech components.

Regarding preparation of the Business Plan for APSC, he emphasized the need to identify potential partners for sustainable operationalization of the center. In this connection, the expert proposed a study tour to China aiming to identify actual requirements for operationalization of APSC and delineating terms of reference based on the direct discussion and feedback of the leading foreign dies tools and production tooling companies. In this regard, the expert apprised the participants that we can use platform of EFS/UNIDO to set a comprehensive meeting schedule with two leading dies/mold and production tooling manufacturing companies (FAW and CITC) in China.

The Minister and Secretary IC&ID commended the findings of the report and proposal to involve foreign and local partners for operationalization of APSC. Furthermore, Secretary IC&ID asked UNIDO/CDI to put up the proposal for the study tour to China for consideration of the competent authority.

The expert held concluding meeting with MD-PSIC and briefed about the activities carried out during the current mission. MD-PSIC expressed satisfaction on the progress of the project and asked UNIDO and PD-CDI to put up the case of study tour for subsequent consideration and approval of Austerity Committee.

1. 2nd Mission of UNIDO Int'l Experts (February 16 – 22, 2019)

The second mission of the Int'l expert along with UNIDO National Coordinator arrived Lahore on February 19, 2019; to share the findings of the assessment report carried out by the expert along with options for collaboration with int'l partner. The first meeting of the mission was arranged with CEO, Engineering Development Board (EDB) on February 18, 2019 which could not be materialized because of eventuality of the state activity.

2.0 Joint Meeting with Minister IC&ID, Secretary IC&ID, MD-PSIC and PD-CDI

The mission activities started with a joint meeting of Int'l consultant with the government representatives i.e. Minister for Industries, Commerce & Investment Department (IC&ID), Secretary IC&ID, Managing Director – PSIC and Project Director – CDI at Industries, Commerce & Investment Department, Lahore.

In the meeting, Project Director CDI, apprised the participants about status of the project starting from inception till implementation stage. The vision, mission and objectives for operationalization of APSC were shared by the expert. He defined Lahore auto parts cluster as attractive tier-1 cluster which has the potential to grow at international level. The mission of APSC has been envisioned as source of providing necessary competences reducing imports, increasing exports and creating jobs. The expert briefed on overall situation of automotive industry of Pakistan and that of Lahore in particular. He briefed the house about 4 levels of competencies existing globally for die/mold manufacturing which are: "Level-I Auto parts manufacturing as per local standards", "Level-II Auto parts manufacturing as per international standards", "Level-III Replacing imports with local content" and "Level-IV Creating own products". It was mentioned that currently, Lahore auto parts has been assessed at competence levels I and II which needs to be developed to the level III and consequently to level IV in order to linkup with global value chains. The expert also elaborated that the industry lacks in adopting the whole process approach of dies/mold manufacturing from product design/reverse engineering to dies/mold maintenance. Mr. Truls emphasized that industry lacks in 'Product Design' and 'Reverse Engineering'. The second serious constraint for the industry is cost trap, due to its inability to move up in the value chain.

The consultant also elaborated SWOT analysis both for the automotive cluster and for dies and mold manufacturers. He then explained the "Expectation Chart" of local Original Equipment Manufacturer (OEMs) vis-a`-vis local vendor competence.

Regarding OEMs it was observed that there is a lack of trust with respect to local supplier's capability to localize complex parts. They believe that local vendors should do joint ventures with international suppliers for direct/ indirect technical assistance to enhance know-how in order to increase localization. The major impediments for localization were also highlighted which includes low production volumes, high standard requirements, Know-how to manufacture complex and hi-tech components (Manufacturing, Die casting / molding), non-availability of quality raw material, unavailability of testing equipment and high import tariffs.

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Pertaining to current condition of APSC, the expert briefed that the project is in shambles, most of the machines present in APSC are not operational. The situation has also been shared with potential Chinese counterparts. Hence, gap exists in OEMs expectations and supplier's competence.

UNIDO National Coordinator also enumerated various reasons of failure of APSC including absence of a good business model, partial hiring required for the operations and lack of marketing strategies. He also briefed that after successful implementation of the business plan for APSC, PSIC may replicate the same for its rest of cluster development centers.

The expert recommended that in order to bridge the prevailing competence gaps related to dies/molds and tooling production in the cluster, APSC can play a vital role. However, it will require int'l collaboration for continuous flow of knowledge and expertise to realize future demands of the industry. In this connection, the expert proposed a 'study tour' to meet with highly successful tools/dies production companies in China. He proposed that government officials should also accompany this study tour to collect first hand information and to witness real conditions and operational requirements to successfully re-operationalize APSC.

The house validated the findings of the assessment report and advised to initiate requirements for the proposed study tour.

2.1 Meetings with Industry Stakeholders

The UNIDO team along with EFS expert and CDI Auto Parts cluster team had meetings with key industry stakeholders. These include:

1 Chief Executive Officer, Infinity Engineering.
2 Chief Executive Officer, KORTECH Auto Industries.
3 Director Operations, Omega Industries (Road Prince).

The industry stakeholders were briefed about the findings of the assessment study carried out by int'l expert along with proposed competence framework of 'Business Model' for operationalization of the center, comprising three partners. One will provide technology/competence know-how; will be a foreign partner, the other (local) will be responsible for operations/management of the center. The training component will also be encompassed in the operations a third partner which will be a local training institute.

The four options for international collaboration were also discussed at length with the stakeholders mentioning that Japanese, Germans and Koreans are not suitable due to their uncompetitive practices and lack of openness to share knowledge. Chinese on the other hand are found to be more suitable in future perspective due to connectivity provided by CPEC and their willingness to share knowledge.

The stakeholders validated the findings of the assessment report and agreed with the competence framework shared by the int'l expert.

2.2 Wrap Up meeting with PAAPAM

A wrap up meeting of int'l expert was held on February 21, 2019 at PAAPAM office, Lahore under the Chairmanship of Vice Chairman (PAAPAM). The purpose of the meeting was to share the activities conducted during the mission. The Vice Chairman PAAPAM, was also apprised about the findings of the assessment report and competence framework for the center. The chair agreed with the approach adopted for developing the business plan and validated findings of the study.

2.3 Debriefing session with MD PSIC

A debriefing session was held on February 21, 2019 wherein Managing Director, PSIC was apprised about the activities of the mission. Mr. Truls, UNIDO int'l expert shared that all the stakeholders have validated the findings of the assessment report. The competence framework for the business plan was also discussed at length along with potential options for international technology/competence partner. Requirement of study tour to acquire firsthand information from successful Chinese die/mold manufacturers was also elaborated. PD CDI apprised MD PSIC that UNIDO will initiate requirement in this regard, which will then be submitted to quarters concerned for necessary approvals. MS PSIC appreciated the work done so far by the team and ensured his complete support for the project.

2.4 Key Takeaways

Key takeaways of the mission are as under:

- The stakeholders validated the findings of the assessment report carried out by the int'l experts.
- The industry lacks in adopting whole process approach of die/mold manufacturing from 'Product Design' to 'Die/Mold maintenance'.
- 'Product Design' and 'Reverse Engineering' are the key weaknesses of local auto parts manufacturers.
- In order to develop whole process of dies/mold manufacturing, there is a lack of 'Know-how'. To develop this 'Know-How' locally, collaboration with int'l partner is critical.
- To develop business plan, insight/information needs to be sought from world class dies/mold manufacturers.
- PSIC-CDI to participate in 'study tour' to meet successful dies/mold manufacturers in China in order to:
    - Observe the conditions of a successful dies and mold facility.
    - Find out information for the development of business plan.
    - Seek potential international partner.
- The stakeholders have recommended to engage a local partner to manage the operations of the center.
- It has also been underscored by the UNIDO int'l expert and industry players to translate international 'know-how' related to dies/molds manufacturing into training content by involving local training institutions.

- Selection criteria/ToRs will be developed by the int'l experts to identify the potential international partner, local operational partner and local training partner.

3.0 Picture Gallery

Joint meeting with Minister IC&ID, Secretary IC&ID, Managing Director - PSIC and Project Director - CDI

Meeting with Mr. Shahrukh Naseem – Director Road Prince

Meeting with Mr. Abdul Razzaq Gauhar – CEO Infinity Engineering

Meeting with Mr. Usman Aslam Malik – CEO Kortech Auto Industries Pvt. Ltd.

Meeting with Mr. Basharat Javed Awan – Vice Chairman PAAPAM

Meeting with the Mr. Riaz Hameed Chaudary – Managing Director PSIC