Country Name		The Project for Technical Support to Auto Parts Manufacturing Industry					
Islamic Republic of Pa	akistan	The Project for Technical Support to Auto Parts Manufacturing Industry					
I. Project Outline							
Background	In 2007, the Government of Pakistan announced its Auto Industry Development Programme (AIDP), which indicated a target of the production of 500,000 four-wheeled vehicles by the programme's final year (2012), but progress had fallen far behind. The reasons behind the lack of sales of domestically produced new cars were thought to be the problems of safety performance, quality, and price. Regarding quality, they lacked competitiveness due to the low technological capabilities of the local parts manufacturing industry. Although automakers were trying to increase the ratio of locally procured parts, most local auto parts suppliers were small and medium enterprises (SMEs) that lacked sufficient production technology, production management, and quality control capabilities, forcing automakers to procure many parts from other countries. Therefore, one major challenge was to improve the quality and productivity of parts manufactured by local auto parts suppliers						
Objectives of the Project	Through (i) forming the framework of the support system for auto parts suppliers, (ii) creating model cases, (iii) developing fundamental skills of the support system members, Small and Medium Enterprises Development Authority (SMEDA), Pakistan Association of Auto Parts and Accessories Manufacturers (PAAPAM) engineers and local consultants (L/Cs), and (iv) improving capacities of SMEDA to transmit the information on productivity and quality management and share with other suppliers, the project aims at improving quality and productivity of auto parts produced by the target suppliers (T/Ss) through the development of support system for auto parts manufacturing industry in Lahore and Karachi, thereby contributing to the spread of quality and productivity improvement activities to auto parts suppliers and SMEs in other sectors and to strengthening competitiveness of auto parts suppliers.						
	<ol> <li>Quality and productivity improvement activities are spread to auto parts suppliers and small and medium enterprises in other sectors.</li> <li>Competitiveness of auto parts suppliers is strengthened.</li> <li>Project Purpose: Quality and productivity of auto parts produced by the target suppliers are improved through the development of support system for auto parts manufacturing industry.</li> </ol>						
Activities of the Project	<ol> <li>Pro</li> <li>Ma</li> <li>cas</li> <li>L/C</li> <li>ma</li> <li>Inp</li> <li>Japanes</li> <li>Eq</li> <li>Fra</li> <li>Eq</li> <li>Pri</li> <li>Lo</li> </ol>	est Site: Lahore city (including its vicinities) and Karachi city in Activities: (i) Forming the framework of the support system for auto parts suppliers, (ii) Creating model es, (iii) Developing fundamental skills of the support system members, SMEDA, PAAPAM engineers and Cs, (iv) Improving capacities of SMEDA to transmit the information on productivity and quality nagement and share with other suppliers outs (to carry out above activities) se Side caperts: 8 persons ainees received: 10 persons (SMEDA:13, PAAPAM:6) puipment: Vehicles, Laptop Computers, Color 2) Office spaces in Lahore and Karachi inters ocal cost					
Project Period	(ex-ante (48 mor (actual) (49 mor	e) April 2015 – March 2019 https) August 2015 – August 2019 https) Project Cost (Japanese side only) Project Cost (actual) 563million yen (actual) 563million yen					
Implementing	Small a	nd Medium Enterprises Development Authority (SMEDA)					
Cooperation Agency	Pakisian Association of Auto Parts and Accessories Manufacturers (PAAPAM) * a cooperating agency						
in Japan	Asia En	igineering Consultant Co., Ltd					

II. Result of the Evaluation

<Special Perspectives Considered in the Ex-Post Evaluation>

There is a significant change in economic circumstances after the project completion. COVID-19, floods (2022), and the economic meltdown in the country have slowed down the businesses and growth in the auto and other sectors<sup>1</sup>. Original Equipment Manufacturers (OEMs) and auto parts suppliers shut down their plants for most days in a month<sup>2</sup>. All these factors negatively affected the effectiveness/impact and sustainability of the project.

1 Relevance/Coherence

[Relevance]

<Consistency with the Development Policy of Pakistan at the Time of Ex-Ante Evaluation >

<sup>&</sup>lt;sup>1</sup> The country was on the brink of default, so the government took the decision to stop the Letter of Credit, which was closed in 2022 due to a shortage of dollars in Pakistan to pay for its imports. In July 2023, the State Bank of Pakistan issued directions to banks to arrange dollars before issuing a Letter of Credit for the import of raw materials. There are no improvements yet due to political and economic instability at the time of ex-post evaluation.
<sup>2</sup> Pakistan was put under a nationwide complete lockdown due to COVID-19 from March 20 to May 15, 2020, which was eased in phases. In addition, due to the economic meltdown and closure of the Letter of Credit, the auto sector closed its plants intermittently from at least December 2022 to March 2023.

The project was consistent with the development policy of Pakistan at the time of ex-ante evaluation. Pakistan Vision 2025, the Government of Pakistan's long-term development plan, identified "private sector and entrepreneurship-led growth" as one of the priority areas. SMEs were expected to play an essential role in contributing to employment, Gross Domestic Product (GDP), and exports. In addition, the Government of Pakistan was formulating the Automotive Development Policy (ADP), the successor to the AIDP (2007), which was expected to include the promotion of domestic production of auto parts as in the AIDP.

<Consistency with the Development Needs of Pakistan at the Time of Ex-Ante Evaluation >

The project was consistent with the development needs of Pakistan at the time of ex-ante evaluation. As mentioned in "Background" above, there was a need to improve the quality and productivity of parts manufactured by local auto parts suppliers because most local auto parts suppliers were SMEs that lacked sufficient production technology, production management, and quality control capabilities, forcing automakers to procure many parts from other countries.

<Appropriateness of Project Design/Approach>

The project design/approach was appropriate. No problem attributed to the project design/approach was confirmed. Effectiveness/Impact and Sustainability have been affected largely by external factors such as COVID-19, floods, and economic meltdown. <Evaluation Result>

In light of the above, the relevance of the project is  $(3)^3$ .

[Coherence]

<Consistency with Japan's ODA Policy at the Time of Ex-Ante Evaluation>

The project was consistent with the Japan's ODA policy to Pakistan at the time of ex-ante evaluation. The Country Assistance Policy for the Islamic Republic of Pakistan (2012) included strengthening the competitiveness of the manufacturing industry in the priority area of "Improvement of Economic Infrastructure". As part of dealing with the development issues, fostering local manufacturing industries, mainly in the automotive industry, which had high value-added and job-creating effects, was mentioned.

<Collaboration/Coordination with JICA's other interventions>

Any collaboration/coordination between the project and JICA's other intervention was not clearly planned at the time of ex-ante evaluation or during the project period.

<Cooperation with other institutions/ Coordination with international framework>

Any cooperation/coordination with other institutions/international framework was not clearly planned at the time of ex-ante evaluation or during the project period.

<Evaluation Result>

In light of the above, the coherence of the project is 2.

[Evaluation Result of Relevance/Coherence]

In light of the above, the relevance/coherence of the project is ③.

## 2 Effectiveness/Impact

<Status of Achievement of the Project Purpose at the Time of Project Completion>

At the time of project completion, the Project Purpose was mostly achieved as planned. Against the target (80%), 94% of 52 target suppliers (T/Ss) achieved Key Performance Indicator (KPI) Goals, and although the percentage of T/Ss that achieved kaizen (improvement) implementation results on individual work field issues<sup>4</sup> was not clear, 63% of overall issues and 86% of quality and productivity-related issues were achieved respectively (Indicator 1). SMEDA<sup>5</sup> and PAAPAM engineers<sup>6</sup> absorbed the Japanese manufacturing method in the kaizen implementation of the whole plant management<sup>7</sup> to the level of being able to instruct auto parts suppliers. They were assessed as satisfactory in the areas of 1) consulting ability in productivity and quality management and 2) facilitation in technical areas (Indicator 2). <<Continuation Status of Project Effects at the Time of Ex-Post Evaluation>

By the time of the ex-post evaluation, the project effects have been partially continued. Although data on the KPI improvement in the T/Ss after the project completion is not available (See Overall Goal Indicator 2-1), according to PAAPAM, all the T/Ss are conducting the activities because protocols of the Japanese manufacturing methods provide them standardization as well as improvement in their productivity. Services have been provided by mainly SMEDA and partly PAAPAM engineers after the project completion, but auto parts suppliers' assessment data on the services is not available. Moreover, the support system developed by the project (members at the time of project completion: 4 SMEDA staff, 4 PAAPAM engineers, and 21 L/Cs<sup>8</sup>) has not been fully functioning as expected. PAAPAM engineers have been decreased to 1 engineer, and no engagement of the trained L/Cs after the project completion in the visit/floor teaching/coaching as initially planned due to limited financial resources (See Overall Goal Indicator 1-1 and Indicator 1-2).

Some achievements are confirmed based on the action plan after the completion of the project prepared by SMEDA and PAAPAM. For information dissemination, Best Practice Manuals prepared by the project have been made available on SMEDA's website. For awareness and capacity building, seminars have been conducted by the PAAPAM Skill Development Center (PSDC). These seminars started in late 2022 on a monthly basis, and 35 to 40 PAAPAM members in the auto parts sector have participated. Seminars are on diverse topics from exports of auto parts to improving quality and productivity etc. In addition, PAAPAM has been utilizing the model case suppliers developed by the project as resources and case studies in their seminars.

<Status of Achievement of the Overall Goal at the Time of Ex-Post Evaluation>

At the time of ex-post evaluation, the Overall Goal has been not achieved. As for Indicator 1-1, the number of SMEs provided with

<sup>5</sup> SMEDA staff of the support system are engineers but not expected to provide technical guidance to companies as they are not expert engineers in auto parts manufacturing but are positioned to be the SME facilitators not only in the auto parts sector but also in other manufacturing sectors.

<sup>6</sup> PAAPAM engineers are positioned to become actual teachers of on-site teaching/coaching.

<sup>7</sup> KPI setting, First In, First Out (FIFO)/Inventory Management, 5 S (SEIRI: Sorting, SEITON: Setting-in-Order, SEISOU: Shining, SEIKETSU: Standardizing, SHITSUKE: Sustaining the Discipline), etc.

<sup>&</sup>lt;sup>3</sup> (4) : very high, (3) : high, (2) : moderately low, (1) : low

<sup>&</sup>lt;sup>4</sup> Major issues selected by T/Ss were stamping/press, casting/forging, and machining.

<sup>&</sup>lt;sup>8</sup> L/Cs are positioned to teach/coach plant management and technical know-how of the Japanese way of manufacturing towards not only the auto parts sector but also other manufacturing sectors. Out of 21 trained L/Cs, certification was awarded by the project to the 11 L/Cs who met the standards for certification set by the project.

services through visit/floor teaching/coaching after the project completion is 28 T/Ss in 2019/20<sup>9</sup> as a follow-up by SMEDA/PAAPAM team, and 25 non-T/Ss and 11 SMEs in other sectors up to 2022/23 by SMEDA staff only. Although there is no target value, considering no participation by L/Cs in the visits/floor teaching/coaching as part of SMEDA's plan<sup>10</sup> due to limited financial resources, but engagement of the trained L/Cs in the training programmes arranged by SMEDA for auto parts and other sectors after the project completion, it is estimated as a level of achievement corresponding to a judgment of "partially achieved". Regarding <u>Indicator 1-2</u>, user assessment of the services through the support system provided by SMEDA and PAAPAM is not verifiable because there is no such data available except for expressions of general satisfaction from T/Ss. With respect to <u>Indicator 2-1</u>, improvement of KIPs in the auto parts suppliers is also not verifiable since sufficient information is not available. As for <u>Indicator 2-2</u>, 61% to 79% of 52T/Ss have improved/increased in relevant areas according to the assessment of the 2 OEMs; there is no information available about other auto parts suppliers.

As stated above, spreading quality and productivity improvement activities through the support system to auto parts suppliers and SMEs in other sectors is confirmed but limited. For strengthening the competitiveness of auto parts suppliers, it can be expected for the T/Ss, if not severely affected by the economic meltdown, to continue kaizen activities based on the achievement of the project purpose at the project completion. As for non-T/Ss, however, related information is not sufficiently available.

<Other Impacts at the Time of Ex-Post Evaluation>

A positive impact was observed. Punjab Small Industries Corporation (PSIC) utilized the project manuals and resources for the implementation of its project on auto parts development in Lahore. No negative impacts were observed. <Evaluation Result>

In light of the above, the effectiveness/impact of the project is 2.

Achievement of Project Purpose and Overall Goal

Aim	Indicators	Results						Source	
(Project	Indicator 1	Status of the Achievement (Status of the Continuation): mostly achieved as planned (not					Project		
Purpose)	At least 80% of the	verifiable)	verifiable)						
Quality and	target suppliers	Project Completion)						Report,	
productivity of	achieve their goals set	Achievement can be	Achievement can be evaluated in 2 aspects of (1) & (2): (1) 94% of 52 T/Ss achieved Key						
auto parts	in the project.	Performance Indicator	Performance Indicator (KPI) Goals, and (2) although the percentage of T/Ss that achieved kaizen						
produced by the		(improvement) impler	improvement) implementation results on individual work field issues was not clear, 63% of						
target suppliers		overall issues and 86%	verall issues and 86% of quality and productivity-related issues were achieved respectively.						
are improved		(1) Achievement of K	) Achievement of KPI Goals which were set during the project activities						
through the		No. of total T/Ss	No. of total T/Ss No. of T/Ss achieving KPI Goa			Achiev			
development of		52		49		9	04 % <sup>11</sup>		
support system		*Achieved minimum 1	goal iten	n under the 5 Kl	PI Perspective:	(i)For Custo	omer (ii)Site Management		
for auto parts		(iii)Operation (iv)Finance	al (v)Othe	ers					
manufacturing		(2) Achievement of ka	izen impl	lementation resu	lts on individu	1al work fie	ld issues		
industry.		The percentage of the	T/Ss is no	ot clear.					
		[Reference Data]							
		Individual work field	issues	No. of issues	No. of issues	achieved	Achievement (%)		
		Overall issues		702	441		63 %		
		Quality & productivity	-related	4.4.1	290	<b>`</b>	06.04		
		441 380 86 %				80 %			
		Ex-Post Evaluation)							
		ot verifiable due to no data available regarding the KPI improvement. (See Overall Goal							
		Indicator 2-1)	ndicator 2-1)						
	Indicator 2	Status of the Achieven	tatus of the Achievement (Status of the Continuation): mostly achieved as planned (partially						
	The average level of	continued)	continued)					Completion	
	the capacities of	(Project Completion)							
	SMEDA and	SMEDA and PAAPAM engineers absorbed the Japanese manufacturing method in the kaizen							
	PAAPAM engineers	implementation of the whole plant management to the level of being able to instruct auto p				le to instruct auto parts	& Interview		
	to assist auto parts	suppliers.	suppliers.						
	suppliers in the areas	Performance review evaluated by SMEDA at the last Joint Coordinating Committee (JCC) in Ju						PAAPAM &	
	below is assessed as	2019							
	satisfactory.	- Consulting ability in productivity and quality management: Achieved 70%							
	- consulting ability in	- Facilitation in technical areas: Achieved 70%							
	productivity and	(Ex-Post Evaluation)							
	quality management.	Services have been provided by mainly SMEDA and partly PAAPAM engineers, but auto parts							
	- facilitation in	suppliers' assessment data on the services is not available (See Overall Goal Indicator 1-1 and							
	technical areas	Indicator 1-2).							
(Overall Goal)	Indicator 1-1	Status of the Achievement: partially achieved Qu						Questionnaire	
	The number of SMEs	(Ex-Post Evaluation)					& Interview		
1. Quality and	provided with	After the project completion up to 2022/23, the number of SMEs provided with services			with				
productivity	services* by SMEDA,	, through visit/floor teaching/coaching is 28 T/Ss, 25 non-T/Ss and 11 SMEs in other sectors.						PAAPAM	
improvement	PAAPAM engineers	No. of SMEs provided with services through visit/floor teaching/coaching as							

<sup>9</sup> Fiscal year in Pakistan is from 1 July to 30 June next year.

<sup>10</sup> There are L/Cs who have also done SME facilitation directly after the project completion. For example, one L/C has done five assignments related to

<sup>&</sup>quot;kaizen" at garment unit. Another L/C conducted 15 trainings and extended facilitation to three industries (Leather, Shoes & Garment).

<sup>&</sup>lt;sup>11</sup> Although it is mentioned as 98% in the Project Completion Report, it is corrected as 94% as out of 52 T/Ss, 49 achieved.

activities are	and L/Cs		(after the project completion)						
spread to auto	* "Services" are	SMEs		2019/20	2020/21	2021/22	2022/23	2023/24	
parts suppliers	defined in the ex-post	Auto	52 T/Ss	28	0	0	0	0	
and small and	evaluation as	parts	Non T/Ss	0	9	10	6	12 (planned)	
medium	consulting on	Other sectors*		3	0	4	4	0	
enterprises in	productivity and	* e.g. Ga	e.g. Garments, Chemicals, Plastics/ Poly Vinyl Chloride and Furniture						
other sectors.	quality management,	SMED	EDA/PAAPAM team conducted follow-up visits to 28 T/Ss in 2019/20. The collaboration						
	facilitation in	between	n SMEDA and l	PAAPAM has g	gradually re	duced and th	e figures fro	om 2020/21 to 2023/24	ł
2.	technical areas	in the ta	ble show the vi	isits by SMED	A staff only		C		
Competitiveness		SMED	A has introduce	d the Japanese	productivi	ty tools learn	ed during th	ne project in more thar	ı
of auto parts		50 non-	T/Ss and SMEs	s in other sector	rs.				
suppliers is		Due to	limited finance	cial resources,	trained L/	Cs have not	t been enga	aged in the visit/floor	r
strengthened.		teachin	g/coaching as j	part of SMED	A's plan si	ince the con	pletion of	the project. However	,
		SMED	A has engaged t	hem in training	g programm	es for SMEs	as below.		
		[Trainir	ng Programmes	arranged by SI	MEDA and	attended by	both SMEs	in auto parts and other	
		sectors]							
		- T	otal Quality Ma	anagement in 2	023/24 (30	participants)			
		- I1	nternational Cer	rtifications in 2	021/22 and	2023/24 (43	participants	5)	
		- I1	ndustrial Safety	and Emergence	y Prepared	ness in 2020/	21 (174 par	ticipants)	
		There	are L/Cs who h	ave also done	SME facilit	ation directly	after the pi	roject completion.	
	Indicator 1-2	Status o	of the Achievem	ent: not verifia	able				Questionnaire
	User assessment of	(Ex-Pos	x-Post Evaluation) & In						
	service provided by	User as	ser assessment data is not available.						
	SMEDA, PAAPAM	Accord	ccording to PAAPAM, 28 T/Ss provided with services in 2019/20 were satisfied with the PAA						
	engineers and L/Cs.	services	5.						SMEDA,
		Represe	entatives of 8	T/Ss who were	e present in	n the intervi	ew of ex-p	ost evaluation showed	Interview
		satisfac	tion with the se	rvices.					with 8 T/Ss
	Indicator 2-1	Status o	of the Achievem	ent: not verifia	able				Questionnaire
	KPIs set by suppliers	Sufficie	sufficient information on the improvement of KPIs in auto parts suppliers is not available.						& Interview
	are improved.	[Examp	Examples from non-T/Ss and SMEs in other sectors realized in 2021/22 a result of a combination SME						
		of Japa	of Japanese productivity tools implementation including KPI setting]						
		- R	educe material	traveling by 30	01 feet				
		- 7	500 minutes of	operator saved	annually				
		- Reduce material handling safety risk by 20%							
	Indicator 2-2	Status of the Achievement: partially achieved Ques							Questionnaire
	Assessment of auto	-	Assessment by 2 OEMs on the T/Ss & In						
	parts suppliers by	Areas for improvement/increase % of 52 T/Ss with							with
	Original Equipment	nent Parts development process facility and expertise 79%						SMEDA,	
	Manufacturers Productivity 68%				Questionnaire				
	(OEMs). Supply chain planning 79%						to 2 OEMs		
		As for non-T/Ss, information is not available.							

## 3 Efficiency

Both the project cost and the project period slightly exceeded the plan (the ratio against the plan: 125% and 102%, respectively). As for cost escalation, a main factor is assumed to be the procedural reason. There was a change in the mode of contract with the Japanese Experts from an individual basis to a consulting firm basis. The excess of the project period was due to the delay in the confirmation of the final report by the implementing agency and their additional requests requiring technical guidance by the Japanese Experts in the final stage. Outputs were produced as planned.

	Project Cost (Japanese side only, yen)	Project Period (months)					
Plan (ex-ante)	451 million yen	48 months					
Actual	563 million yen	49 months					
Ratio (%)	125%	102%					
In light of the above, the efficiency of the project is ③.							

4 Sustainability <Policy Aspect>

The Pakistan Vision 2025 stated in "Relevance" is still effective at the time of ex-post evaluation. In addition, the main focus of the Auto Industry Development and Export Policy (AIDEP) 2021 - 2026 is to make Pakistan a hub for competitive manufacturing of auto parts and vehicles for local markets and exports.

<Institutional/Organizational Aspect>

There have been no changes in SMEDA affecting the sustainability of the project. Through its Industry Support Cell (ISC) under Business and Sector Development Services Division, SMEDA has been supporting SMEs through the activities and methods learnt from the project. All the four SMEDA staff trained as the support system have been continuously working after the project completion to date. SMEDA is expected to be functioning to perform its roles including providing services to auto parts suppliers and SMEs in other sectors. In PAAPAM, PSDC has started functioning to hold seminars for member companies as expected in the post-project action plan developed by SMEDA and PAAPAM. However, the support system developed by the project has not been continuing as expected because of the turnover of trained engineers in PAAPAM<sup>12</sup> and financial constraints of SMEDA for engaging trained L/Cs<sup>13</sup> in the visits/floor teaching/coaching as part of SMEDA's plan. It is difficult to provide services through the whole support system as expected.  $\langle \text{Technical Aspect} \rangle$ 

Technical skills and knowledge gained are utilized during facilitation done by SMEDA staff and will be sustained because these are all according to the standards and are well-defined. In SMEDA's opinion, further knowledge transfer is required for SMEDA and PAAPAM engineers and L/Cs specifically related to individual fields like welding, stamping, casting, etc. Manuals and teaching material developed by the project have been utilized by SMEDA staff while facilitating the SMEs. SMEDA staff have also developed manuals after the project completion on various topics like 5S, Total Productive Maintenance (TPM), and Balance Score Card based on the learning and knowledge gained from the project. However, there is no in-house training/knowledge-sharing system utilizing the human resources trained by the project in PAAPAM for the work of the support system to develop other staff and engineers to participate, which affects the technical sustainability as the number of trained members has largely decreased.

<Financial Aspect>

SMEDA has not secured a development budget specifically for the post-project/scale-up activities throughout the post-project period, although it was planned to use the development budget to assist SMEs in auto parts and other sectors after the project completion. At the time of ex-ante evaluation, it was planned to incorporate post-project planning into project activities, including the application for a development budget. According to SMEDA, they usually make requests to the federal government for allocation of development budget every year to sustain the project activities; however, since the project ended in August 2019 in the financial year 2019/20 (July to June), the request was not made for the same fiscal year. Since 2020/21, due to COVID-19 and floods (2022), most of the government

development funding was diverted to relief and social protection programmes. In addition, poor economic conditions have reduced the overall development budget in the country. SMEDA, therefore, cannot scale up its services, including utilizing L/Cs as initially expected, without a development budget. SMEDA is currently approaching development partners for funding to start new projects.

SMEDA Budget/Expenditure Trends (Unit: Million Pakistan Rupees)							
Fiscal Year*	2019/20	2020/21	2021/22	2022/23	2023/24		
Regular Budget	253	294	285	287	358**		
Development Budget	0	0	0	0	0		
(specifically for the post-							

project/scale-up activities)

\*1 July to 30 June next year

\*\* allocated budget

However, SMEDA can continue providing services to auto parts suppliers and SMEs in other sectors as part of their normal duties using the regular budget at its manageable size. SMEDA has actually managed to continue the visit/floor teaching/coaching annually, arrange training programmes, and introduce Japanese productivity tools to SMEs in auto parts and other sectors. The costs have been covered under the regular budget which is used for the whole organization to cover a wide range of functions and support services for SMEs. <Environmental and Social Aspect>

No issue on environmental and social aspect has been observed, and it has not been necessary to take any countermeasures. <Evaluation Result>

In light of the above, some problems have been observed in terms of the institutional/organizational, technical and financial aspects of the implementing agency. Therefore, the sustainability of the project effects is ②.

5 Summary of the Evaluation

The project mostly achieved the Project Purpose as planned, which was to improve the quality and productivity of auto parts the T/Ss produce by developing a support system for the auto parts manufacturing industry in Lahore and Karachi. The project did not achieve the Overall Goal which was to contribute to the spread of quality and productivity improvement activities to auto parts suppliers and SMEs in other sectors and to strengthen the competitiveness of auto parts suppliers. Although the activities for such purposes were confirmed to a certain extent, information to confirm the achievement is not sufficient. As for sustainability, some problems have been observed in relation to the human resources developed by the project and funding for post-project activities, which were affected by COVID-19, natural disaster and the economic crisis in the country.

Considering all of the above points, this project is evaluated to be partially satisfactory.

## III. Recommendations & Lessons Learned

Recommendations for Implementing Agency:

• It is recommended that SMEDA and PAAPAM reactivate the support system and form a joint body and mechanism for collaboration to disseminate the good practices learned from the project and approach development partners for financial support.

• Since SMEDA is a public organization with no development budget for engaging L/Cs as planned for the time being, it is recommended that SMEDA explore the possibility of PAAPAM to engage and finance L/Cs visits.

Lessons Learned for JICA:

• Many of the PAAPAM engineers trained in the project left their organizations in search of better opportunities in other countries. In similar projects, it would be better to chalk out a strategy that can train more engineers and resources by the master engineers during the project so that the counterpart organizations have enough resources for the continuity and sustainability of the efforts made by the Japanese Experts. It is suggested to include a training system/mechanism of staff/engineers other than those directly trained by the Japanese Experts and preparation of necessary tools such as manuals in the project component.

• Although the major factors affecting the financial constraints are COVID-19, the economic crisis in Pakistan starting in 2022 and onwards, etc., it should also be noted that securing the development budget for the post-project/scale-up activities was not realized in 2019/20 even before the hit of COVID-19 and others. In planning similar projects, the feasibility of obtaining funding for the post-project activities, including availing private resources like L/Cs who usually require a certain level of remunerations, should be discussed and

<sup>13</sup> 8 L/Cs with certification from the project are currently registered with SMEDA. Some L/Cs moved to other countries like UAE and Sweden for better

employment opportunities.

<sup>&</sup>lt;sup>12</sup> Many of those left their organization in search of better opportunities in other countries like United Arab Emirates (UAE) and Sweden.

analyzed in more detail at the time of ex-ante evaluation. It is also necessary to ensure that specific actions, such as budget applications for post-project activities, are taken during the project implementation in time to continue activities without lapses to wait for another fiscal year.

• The Overall Goal Indicators of the project were vague in meaning and had no target values, making it difficult to verify the degree of achievements in the ex-post evaluation. The indicators should be set with concrete contents and target values so that the implementing agencies can understand what they aim for, and the achievements of the project can be evaluated more clearly.



SMEDA Team visit to auto parts factory

KAIZEN seminar held by PAAPAM