



PROJECT IMPLEMENTATION PLAN ADDENDUM

31 May 2018

1. **Project Code** 17-AG-39-GE-NFP-C-11
2. **Title** Productivity Enhancement through Applications of Industry 4.0 in Fiji
3. **Reference** Project Notification 17-IN-83-SPP-OSM-A dated 29 September 2017; Project Notification 17-AG-39-GE-NFP-C dated 9 May 2017; Project Notification Addendum dated 11 July 2017; and Project Implementation Plan 17-AG-39-GE-NFP-C-11 dated 17 May 2018
4. **Timing & Duration** 18–23 June 2018 (six days)
5. **Venue** Suva, Fiji
6. **Addendum No.** 1
7. **Details** Change in Venue in Project Implementation Plan

7-1 Change in Item No 5. “Venue”

The project implementation venue has been changed from Suva, Fiji to **Suva and Nadi, Fiji**.

Other terms and conditions specified in the Project Implementation Plan dated 17 May 2018 remain unchanged.

Dr. Santhi Kanoktanaporn
Secretary-General



PROJECT IMPLEMENTATION PLAN

17 May 2018

1. **Project Code** 17-AG-39-GE-NFP-C-11
2. **Title** Productivity Enhancement through Applications of Industry 4.0 in Fiji
3. **Reference** Project Notification 17-IN-83-SPP-OSM-A dated 29 September 2017; Project Notification 17-AG-39-GE-NFP-C dated 9 May 2017; and Project Notification Addendum dated 11 July 2017
4. **Timing & Duration** 18–23 June 2018 (six days)
5. **Venue** Suva, Fiji
6. **Implementing Organizations**
National Training & Productivity Centre (NTPC)
Fiji National University
Lot 1, Beaumont Road, Narere, Suva, Fiji
Phone: 679-339-2000 Fax: 679-334-0184
e-Mail: dntpc@fnu.ac.fj

Fiji Commerce & Employers Federation (FCEF)
Employers Hub
42 Gorrie Street, Suva, Fiji
Phone: 679-331-3188
7. **No. of Participants** Up to 200 participants
8. **Objectives**
 - a. To assist Fijian manufacturers to develop and transition their operations to Industry 4.0; and
 - b. To understand how to tackle the challenges in the applications of Industry 4.0 in the context of manufacturing in Fiji

9. Background

Fiji is ranked among the more favorable countries for manufacturers in the Melanesian Spearhead Group due to its affordable utility costs. However, since there is still little knowledge of Industry 4.0, most manufacturers identify their operations as at the Industry 2.0 stage. Larger manufacturers, mostly multinational enterprises, are now in Industry 3.0. The implementation of Industry 4.0 in the Fijian context will start with upgrading to Industry 3.0 using the Internet of Things (IoT) to streamline manufacturing processes by connecting all computer numerical control operations and central control systems to analyze the performance of production lines and incorporate signals to avoid downtime.

The APO, with financial support from the Ministry of Foreign Affairs of Japan, organized a study mission on Productivity Enhancement through Applications of Industry 4.0 in Tokyo, 6–9 March 2018. During that study mission, Chairperson Himen Chandra, Trade Standards Advisory Council, Ministry of Industry, Trade and Tourism of Fiji and Immediate Past President of the FCEF represented Fiji. The NTPC and FCEF are conducting a follow-up project to intensify the sharing

of knowledge on best practices for promoting productivity enhancement through applications of Industry 4.0.

10. Scope and Methodology

For training by the NTPC, the methodology will include lectures, videos, and Q&A sessions. Participants will be presented not only with the theoretical concepts of Industry 4.0 but also with practical examples of how IT applications in business processes and factory operations can be used to address labor constraints, sustain profitable operations, and improve productivity.

The FCEF plans a one-day workshop for Manufacturing Trade & Export Council members along with a day of visits to manufacturing organizations. The approximately 200 participants will also attend the FCEF Annual Top Executive Conference where the APO-assigned international resource person will join other speakers to address senior executives, business leaders, and representatives from the public sector on topics related to the IoT and the future of work.

The tentative program is given in Appendix 1.

11. Requirements of Participants

The participants should be operation managers in the manufacturing-related sector; senior government officials involved in setting industrial policy; representatives of industrial associations; managing directors, chief executives, and senior managers from the Manufacturing Trade & Export Council; senior executives from both the public and private sectors; or business leaders and board members.

12. Resource Persons

The APO will assign one overseas resource person. Local resource persons from relevant agencies will be assigned by the implementing organizations.

13. Financial Arrangements

To be borne by the APO

- a. All assignment costs of one overseas resource person.
- b. Implementation costs up to a maximum of USD5,330 for making local arrangements. An itemized breakdown of the implementation costs is attached (Appendix 3).

To be borne by the host country (Fiji)

- a. Implementation costs exceeding the APO share of USD5,330.
- b. Project management fees and personnel costs of the implementing organizations in Fiji.
- c. Any other local implementation costs not covered by the APO.

14. Roles and Responsibilities

The roles and responsibilities of the implementing organizations (as listed in section 6) and APO are:

Implementing organizations

- a. Inviting local participants and arranging mass media coverage;
- b. Assigning local resource persons;
- c. Making copies of the conference and workshop materials;
- d. Organizing the program for a two-day training session, two-day workshop, and two-day conference in Suva, Fiji; and
- e. Bearing part of the project cost in excess of USD5,330.

APO

- a. Providing financial support for organizing the program as detailed in section 13;
- b. Assigning one overseas resource person for the program; and
- c. Coordinating with the overseas resource person and implementing organizations.

15. Procedures for Project Implementation

This project is to be implemented by the local implementing organizations in Fiji in close collaboration with the NTPC and APO Secretariat, referred to as the APO in this document.

- a. The proposed project will be carried out by the implementing organizations.
- b. The local implementing organizations in Fiji will make the expenditures for the assigned items and settle the entire account by providing all necessary proof of payment, e.g., bills, payment records, and receipts issued by third parties, which must be submitted together at one time, written in clear English, and with an English translation of all documents not originally written in English. In general, internal evidence is not accepted as proof of payment and will not be reimbursed. The payment will be made based on the actual expenditure after the implementing organizations submit the project completion report.
- c. The local implementing organizations in Fiji will submit a comprehensive project completion report including a statement of expenses to the APO within one month of project completion. The report will provide details on how the project was carried out in the country; program of activities; a registration list of participants and resource persons; number and type of participants; statement of the expenses related to the APO's contribution to the project; benefits and advantages to the manufacturing sector, local businesses, implementing organizations, and host country; recommendations and follow-up action plans; selected photos; and summary of the onsite evaluation of the program by the participants, resource persons, and implementing organizations along with the original evaluation forms completed by them. Other forms of documentation may also be submitted as part of the comprehensive project completion report.

16. Final Project Output and Outcomes

Upon completion of the project, the NTPC in collaboration with the FCEF will undertake the following:

- a. Submit a project completion report on the training, workshop, and conference to the APO and disseminate the report on the proceedings of the program including recommendations to relevant government bodies within one month after project completion.
- b. Submit a statement of expenses supported by third-party receipts/bills within one month after project completion.
- c. Submit documents and e-links relating to promotional material on the national program, e.g., newsletters, news articles, brochures, bulletins, and news clippings, written in English or the local language with an English translation of the main points.
- d. Disseminate the knowledge and experience gained to the public and private sectors through publications, consultancy services, training courses, etc.
- e. Monitor the follow-up actions undertaken by participants or participants' organizations and report them to the APO.

After completion of the program, participants or their organizations will undertake the following:

Government agencies and universities:

- a. Include innovative techniques and technologies of Industry 4.0 in extension programs; and
- b. Coordinate with various agencies in support of awareness, extension, and adoption of Industry 4.0 initiatives.

Participants:

- a. Submit action plans to the NTPC and FECF for the implementation of concepts, technologies, and best practices in their own organizations;
- b. Inform the NTPC and APO of success stories on the implementation of the lessons and insights learned from the program; and
- c. Submit requirements for government agency assistance for their own action plans.

Expected outcomes:

- a. Developing productive, innovative mindsets on new ways of production utilizing Industry 4.0 tools and techniques;
- b. Adapting emerging approaches in implementing Industry 4.0 for strategic advantage in business; and
- c. Enhancing the productivity and competitiveness of the Fijian manufacturing industry.



Dr. Santhi Kanoktanaporn
Secretary-General

Tentative program

APO National Follow-up Program on Productivity Enhancement
through Applications of Industry 4.0 in Fiji

Suva, Fiji, 18–23 June 2018

Provisional Program of Activities for the NTPC:

DAY 1: 18/06/18	
8:30	Welcome & Introduction
9:00	<ul style="list-style-type: none"> • Industry 4.0 definition • Benefits of Industry 4.0 • Industrial revolutions and future view • The digital transformation of industry and the Fourth Industrial Revolution
10:00	Morning tea break
10:30	<ul style="list-style-type: none"> • Principles of smart factories • Industry 4.0: key principles • Automation 101 • Industry 4.0 and the industrial Internet
13:00	Lunch break
14:00	<ul style="list-style-type: none"> • Status of Industry 4.0 • Industry 4.0 strategy and implementation • Industry 4.0 challenges and risks
15:15	Afternoon tea break
15:30	<ul style="list-style-type: none"> • Role of leadership and technological capabilities in implementing Industry 4.0 for strategic advantage in business
16:30	Conclusion of day 1
DAY 2: 19/06/18	
8:30	Recap of day 1
9:00	<ul style="list-style-type: none"> • Leadership capabilities • Industry 4.0 and the future of production • Effects and challenges
10:00	Morning tea break
10:30	<ul style="list-style-type: none"> • Digitization of manufacturing • Disruptions • Data volumes, computational power, and connectivity in new low-power wide-area networks
13:00	Lunch break

14:00	<ul style="list-style-type: none"> • Recommended strategies for developing the necessary skills • Foundational capabilities to support implementation
15:15	Afternoon tea break
15:30	<ul style="list-style-type: none"> • Industry 4.0 technologies within an organization
16:30	Closing and evaluation

Provisional Program of Activities for the FCEF:

1-day workshop: 20/06/18

8:30	Welcome and introduction
9:00	Setting the scene
	Situation analysis for Fijian manufacturers and the Melanesian Spearhead Group
10:00	Morning tea break
10:15	Challenges faced by Fijian manufacturers
11:15	Situation of Industry 4.0 in Germany (comparison with Japan and how to start)
12:15	Lunch break
13:15	Action plan design
15:15	Afternoon tea break
15:30	Action plan presentations
16:30	Closing and evaluation

Site visits: 21/06/18

Tentative Program for Annual Top Executive Conference

TOPEX CONFERENCE AGENDA 2018**"CHANGE & TRANSITION; READINESS & RESISTANCE"**22nd & 23rd June, 2018, Sofitel Fiji Resort & Spa, Denarau

Thursday, 21 st June, 2018	
2pm – 4pm	Arrival at hotel
	Collect Registration Packs from Conference Coordinators at Assigned Spot
6.00pm	Reception Cocktail
6.30pm	Briefing of the Program by Master of Ceremony – Kamel Batiweli
	Welcome – FCBF President, Sandeep Chauhan
	Introduction of the Keynote Speaker by the FCBF CEO, Nesbitt Hazelman
	Address by the Chief Guest & Keynote Speaker, Hon. Attorney General, Minister for Economy, Justice, Anti-Corruption, Public Enterprises, Communications, Civil Aviation, Acting Minister for Education
	Vote of thanks by the FCBF Vice President, Eseta Nadakutavuvu/ Kapesh Solanki
7.30pm	Dinner
7.00pm	Welcome Dinner
Super-Sized Friday, 22 nd June, 2018	
6.00am	Rise and Shine with Eseta Nadakutavuvu and Nesbitt Hazelman (Zumba)
8.00am	Registration
8.30am	Prayer
8.35am	Program Briefing – MC Kamel Batiweli
8.40am	"ILO's Future of Work and its Implications to the Employers Organizations" – Director, ILO Office of the South Pacific, Mr. Donglin Li
9.00am	2017 Communique Highlights – what have we done? – FCBF CEO, Nesbitt Hazelman
Session 1	
9.15am (75 mins)	"The Economic Challenges Facing Fiji Businesses" – Convener (Nouzab Fareed) <ol style="list-style-type: none"> 1) The National Forecast – Hon. Minister / Permanent Secretary, Ministry of Economy 2) New Tax Reforms & Customs Incentives – Visvanath Das, CEO Fiji Revenue & Customs Services 3) Levels of Trust in Businesses – Zarin Khan, President, Fiji Institute of Accountants
10.30am	G & A (15 mins)
10.45am	PHOTO SESSION & MORNING TEA
Session 2	
11.00am (60 mins)	"Corporate Wellness and You" – Convener (Kapeesh Solanki) <ol style="list-style-type: none"> 1) "Managing Absenteeism & Presenteeism – when Absence speaks louder than words" – Hon. Jone Usamate, Minister for Employment, Industrial Relations & Productivity 2) "Occupation Safety & Liability Threats to Business: Lessons Learnt" – Andrew See, Resident Magistrate
12.00pm	G & A (15 mins)
Session 3	
12.15pm (75 mins)	"Enterprise Risk & Resilience" – Convener (Sandeep Chauhan) <ol style="list-style-type: none"> 1) "Encouraging Businesses to take a Calculated Risk" – Trish Jenkins, Author & Keynote Presenter 2) "How does Bank Credit Help the Economy?" – Arif Ali, Governor Reserve Bank of Fiji
1.30pm	G & A (15 mins)
1.45pm	LUNCH
Session 4	
3.10pm (60mins)	"Leading Change: why businesses need to change" – Convener (Dixon Seero) <ol style="list-style-type: none"> 1) "Transforming Businesses to be purpose-driven, Strategy Focused and Accountable" – David Evans, Director/ Consultant DAE Strategic Pty Ltd 2) "The Internet of Things and the Future of Work" – Dr. Lorenz Granath, Supervisory Innovation Coordinator, AIST

4.50pm	G & A (15mins)
4.45pm	AFTERNOON TEA
Session 5	
5.00pm (80 mins)	<p>"Tropicalities" – Convener (Howard Polin)</p> <ol style="list-style-type: none"> 1) "The IWI (Maori) Economy and the Opportunities they present for Fiji Businesses – Market Access or Investment: Cultural Practices which marry with Sustainable Businesses" – Kristen Kohere-Soular, Director Mercer NZ, Ngali Porou Holdings Company and previous Chair of Ngai Tahu Whai Rawa - Superannuation scheme; NZTE Manager Coalitions and Sector Navigator for seafood, Manuka Honey and Strong Wool 2) "Promoting Regional Trade Cooperation" – Craig Strong, Chief Executive Officer, Pacific Cooperation Foundation
6.20pm	G & A (15mins)
6.35pm	Wrap-Up
END OF DAY 1	
7.50pm	<p>DINNER THEME – 60s Fashion Trends</p> <p>"Saying it Right to the Right People" – Moses O'Connor (John Maxwell Graduate - Motivational Speaker)</p>
Executives Saturday, 23 rd June, 2018	
6.00am	Rise & Shine with Kameli Batiweti and Himen Chandra (Zumba)
7.30am	Post – Budget Breakfast Briefing
Session 6	
9.00am (80 mins)	<p>"Renewable Energy: The Future" – Convener (Himen Chandra)</p> <ol style="list-style-type: none"> 1) "Renewable Energy and the SDGs multi stakeholder partnerships for bottom line improvements from renewables" – Bulent Bicer, Project Manager (Research), I: A Fulton Schools of Engineering, Arizona State University, Arizona State University 2) "Renewable Energy: Cost benefit Analysis to Businesses; Green Bond" – Hasmulth Patel, Chief Executive Officer, Energy Fiji Ltd
10.20am	G & A (15 mins)
10.35am	MORNING TEA
Session 7	
10.50am (60 mins)	<p>"Changes in the Education System" Panel Session – Convener (Ram Bajekal)</p> <ol style="list-style-type: none"> 1) Permanent Secretary for Education, Alison Burchell 2) Director Fiji Higher Education Commission, Linda Aumua 3) Supervisory Innovation Coordinator, AIST, Dr. Lorenz Granath
11.50pm	G & A (15 mins)
12.05pm	LUNCH
Session 8	
1.00pm (80 mins)	<p>"Business Process Re-engineering" – Convener (Hesbitt Hazeman)</p> <ol style="list-style-type: none"> 1) "Transforming Organizations to be Purpose-Driven, Strategy-Focused and accountable" – Vasu Vincent Nair, Senior Global Executive Leader 2) "Keeping it simple" – Ram Bajekal, CEO FMF Foods Ltd
2.20pm	G & A (15 mins)
2.35pm	AFTERNOON TEA
Session 9	
2.50pm (90 mins)	<p>"Productivity Growth Strategies" – Convener (Vinay Harvey)</p> <ol style="list-style-type: none"> 1) "Global Trends That Will Re-define the Work, the Workers and the Workplace" – Felix Anthony, General Secretary, FTUC 2) "Unpredicted Outcomes - Court Judgments that make Employers go Hmmm" – Jon Apted, Partner, Munro Leys 3) "Linking Policies and Strategies to obtain the Business Objectives: IR Flavoured" – Jenny Seeto, Consultant
4.20pm	G & A (15 mins)
Session 10	
4.35pm (20 mins)	"Communique Development & Evaluation" – Convener (Hesbitt Hazeman)
4.55pm	Vote of Thanks – TOPEX Chairperson, Esita Nadakuitavuki
	Wrap Up
7.00pm	<p>DINNER – SPORTS – "Winner never quit, Quitters never Win"</p> <p>"Where to from here?" Speaker – Fiji Airways 7s Coach, Gareth Baber</p>
8.00pm	Vote of Thanks by FCEF President Entertainment
Humble Sunday, 24 June, 2018	
Breakfast & Check-Out	

Appendix 3

Project Code: 17-AG-39-GE-NFP-C-11

Estimated costs for the National Follow-up Program on Productivity Enhancement through Applications of Industry 4.0 in Fiji Suva, Fiji, 18–23 June 2018

NTPC: 18-19/06/18

No.	Item	APO budget (USD)	Local partners budget
1.	Rental costs of room and equipment for 35 pax at Grand Pacific Hotel (meals not included)	4,700	-
2.	Reproduction of conference materials	210	-
3.	Conference kit (pens, paper, etc.)	20	-
Sub-total (a)		USD4,930	-

FCEF: 20-21/06/18

No.	Item	APO budget (USD)	Local partners budget
1.	Rental cost of room (FEFHA boardroom) and equipment (meals not included)	150	-
2.	Reproduction of conference materials (printing and binding)	100	-
3.	Conference kit (pens, notepads, etc.)	50	-
4.	Transportation costs for site visits	100	-
Sub-total (b)		USD400	-

TOPEX: 22-23/06/18

No.	Item	APO budget (USD)	Local partners budget
1.	Rental cost of room and equipment (meals not included)	-	FCEF
2.	Reproduction of conference materials	-	FCEF
3.	Conference kit (pens, papers, etc.)	-	FCEF
Sub-total (c)		-	FCEF

Grand Total (a + b + c) = USD 5,330

