



2018 K-Innovation ODA Program with Sri Lanka

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and R&D Commercialization in
Sri Lanka

2018 K-Innovation ODA Program with Sri Lanka

Title	2018 Capacity Development Workshop - Science Technology and Innovation (STI) Policy Formulation and R&D Commercialization in Sri Lanka
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2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy Formulation and R&D
Commercialization in Sri Lanka

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Preface

The Science and Technology Policy Institute (STEPI) has played a key role in the development of science and technology (S&T), promoting national competitiveness as a leading global think tank for science, technology, and innovation (STI) policy research. To serve as a hub for Korea's ODA in science, technology and innovation, STEPI opened the International Innovation Cooperation Center (IICC) in 2014. Since its establishment, IICC has successfully performed three key roles of policy consulting, education and training, and network building in the field of STI policy while working closely with partner countries. Among its activities, IICC's representative program is called *K-Innovation ODA Program*. IICC has been promoting the *K-Innovation ODA Program* as part of efforts to respond actively to the STI policy needs and demands of partner countries by utilizing the highly recognized Korean STI development model and its experience & know-how.

The *K-Innovation ODA Program* has two pillars of activities: first, in the case of **STI Policy Consultation**, it provides a practical methodology that reflects the socioeconomic context of the partner country by sharing Korean STI policy experiences and knowledge in STI policymaking and implementation. Second, the **Capacity Building and Training program** aims to develop a strategy to improve understanding of STI policies by innovation actors for S&T Human Resource Development.

The K-Innovation ODA Program has three key strategies. First, the *K-Innovation ODA Program* is focused on cultivating practical execution capabilities with emphasis on transferring methodologies for policy implementation beyond consultation on simple policy planning for partner countries. Oftentimes, what partner countries are lacking is not "what to do" but "how to do." The lack of "how to do" has now become one of the most formidable challenges for most of the partner countries. Second, the program emphasizes strengthening the policy capabilities of partner countries based on the learning by doing approach by encouraging their active participation instead of the one-sided transfer of Korean experience. Third, the program pursues beneficiary-oriented policies, not supplier-oriented ones, based on the beneficiaries' needs (client needs) by providing counseling on policy agendas that partner countries are in dire need of. As result, the outcomes of policy counseling are reflected to actual laws or are actually implemented instead of being kept in reports.

In pursuit of the abovementioned strategies, STEPI-IICC has implemented the *K-Innovation ODA Program* since 2014 when the first-year program was initiated with Ethiopia in Africa. Cooperation with Latin American countries has also been promoted since 2016 by adding programs for Ecuador and Peru. Marking the program's fifth year

in 2018, STEPI has particularly sought diversity by expanding partner countries (Ethiopia, Tanzania, Tunisia, Uganda, Indonesia, Cambodia, Sri Lanka, and Azerbaijan).

The 2018 Sri Lanka training program was initiated at the request of the National Science and Technology Commission (NASTEC) as a follow-up of the capacity-building workshop in Colombo organized by STEPI and NASTEC in May 2017. I believe this project will contribute to improving the national STI policy capabilities and mechanisms for R&D commercialization in Sri Lanka.

I would like to take this opportunity to offer my special thanks to the Project Manager Eun Joo Kim who has led the project successfully and other STEPI experts such as Prof. Young-Rak Choi, Senior Research Fellow Emeritus, Dr. Deok Soon Yim, Senior Research Fellow, and Mr. Byung Woo Jeon Researcher. I would also like to convey my sincere appreciation to the experts in the field of national research and development program -- Dr. Hyun Yim from Korea Institution of Science and Technology Evaluation and Planning (KISTEP), Dr. Hyung Woo Park from Korea Institute of Science and Technology Information (KISTI).

In addition, I would like to express my gratitude to the Sri Lankan focal person Dr. Muditha Liyanagedara, the acting president of NASTEC, for faithfully supporting the project. Finally, special thanks go to Dr. Kalpa Smarakoon for his assistance from the very beginning till the end of the project.

I sincerely hope that the project paves the way for Sri Lanka to enhance its technology innovation capabilities and ultimately emerge as an innovative leader in Asia. Lastly, please note that the views presented in this report are the authors' personal opinions and are not representative of STEPI's official position.

Thank you.

Hwang Hee Cho
President
Science and Technology Policy Institute (STEPI)
Republic of Korea



Executive Summary

Sri Lanka is a lower middle-income country of 21.2 million people with a per capita GDP in 2017 of \$4,065. Since the civil war ended in 2009, the GDP growth rate in Sri Lanka averaged 5.88% from 2003 until 2017, reflecting a peace dividend and a commitment to reconstruction and growth. The economy is transitioning from what was previously a predominantly rural-based economy towards a more urbanized economy oriented around manufacturing and services.

The main focus of the policies and economic reforms as stated by the current government of Sri Lanka is a knowledge-based social market economy. In this context, the Sri Lankan government has announced its intention to promote science, technology and innovation for SDG achievement.

Although Sri Lanka has formulated many policies including the national S&T policy for the development and utilization of science and technology, it still lacks the ability to develop implementable action plans that fit to or change the political, social and economic contexts of the country.

The National Policy for STI Development identifies the challenges of the Sri Lankan STI system; a lack of quantitative policy analysis techniques and R&D commercialization mechanisms, insufficient knowledge of STI policy formulation techniques and policy implementation mechanisms, a lack of STI personnel and their capacity, limited information regarding the STI system in Sri Lanka, and the issues of institutional capacity and governance of the national STI system.

The National Science and Technology Commission (NASTEC), an advisory body to the Government of Sri Lanka on Science and Technology, requested that STEPI provide a customized training workshop on quantitative policy analysis techniques for making STI

policy formulation more effective and establishing an R&D commercialization culture among the STI players. A project proposal seeking the Korean government's financial support was submitted in 2017. After receiving approval from the Korean government, STEPI developed the training program by conducting a needs assessment survey and interviews of key policy makers in Sri Lanka.

This training was aimed at improving the STI policy capacity of Sri Lankan STI policy makers and experts in order for them to gain a deeper understanding and insights on STI policy and strategy development. It also helped government officials from various ministries and STI stakeholders obtain appropriate knowledge on policy analysis techniques and mechanisms for R&D commercialization.

As a result of the training workshops on STI policy and R&D commercialization, government officials who are involved in these subject areas gained significant knowledge of the above subjects and highlighted the importance of the implementation of a sound STI policy in the country to enhance the contribution of the STI sector to national economic development. It was identified that the R&D commercialization sector in Sri Lanka is at a very infant stage of development, and hence needs a comprehensive review and development along with developments in research development and the establishment of an innovation eco system in the country.

In order to further enhance policy formulation capacity, the Sri Lankan government requested that STEPI support them to develop implementable action plans for economic gains and the development of a legal framework for implementation as a follow-up to the 2018 training program. Responding to this request for collaboration, STEPI intends to carry out fact-finding research and then provide consultation for NASTEC to develop an S&T policy implementation roadmap.

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CHAPTER 1

Project Overview

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and
R&D Commercialization in Sri Lanka -



Chapter 1. Project Overview

1. Introduction

Sri Lanka is a lower middle-income country of 21.2 million people with a per capita GDP in 2017 of \$3,759. Since the civil war ended in 2009, the economy has grown on average 6.2 percent a year, reflecting a peace dividend and a commitment to reconstruction and growth. The economy is transitioning from being predominantly rural-based to being urbanized and economically-oriented around manufacturing and services. The Government of Sri Lanka has announced its intention to promote science, technology and innovation for SDG achievement in Sri Lanka and to undertake a policy review on science, technology and innovation in Sri Lanka.

The National Policy for STI Development identifies the challenges of Sri Lanka's STI system; a lack of quantitative policy analysis techniques and R&D commercialization mechanisms, insufficient knowledge of STI policy formulation techniques and policy implementation mechanisms, a lack of STI personnel and their capacity, limited information available on the STI system in Sri Lanka, and issues of institutional capacity and governance within the national STI system.

The National Science and Technology Commission (NASTEC) is designed to function as the apex of policy formulating and as an advisory body to the Government of Sri Lanka on science and technology matters. It was established by the Science and Technology Development Act No. 11 of 1994, and came into operation in August 1998. Currently it is operating under the Ministry of Science, Technology and Research (MoSTR).

MoSTR and NASTEC have requested that the Science and Technology Policy Institute (STEP I)

provide a customized training workshop on quantitative policy analysis techniques (applications of econometrics, operations research, data envelopment analysis, dynamic optimization, engineering economy etc.) to make STI policy formulation more effective and to establish an R&D commercialization culture among STI players by submitting the project concept paper to STEPI in 2017.

This training aims to set the means and mechanisms of commercializing the research outputs of R&D institutions which are necessary to promote innovation in the country. By organizing a customized training program for Sri Lanka's high level policy makers and STI stakeholders, STI policy capacity will be further developed. The training is well-aligned with the recently announced National STI Development Policy without duplication or overlap with other existing public innovation policies from various ministries. Furthermore, to successfully implement the program, the strong commitment of all the relevant actors and participants is required. Thus, to ensure the effectiveness and sustainability of the program, a participatory approach should be followed. Simultaneously, the program should be developed according to the internal procedures and structures of the MoSRT and NASTEC.

The purposes of the project are to 1) enable Sri Lankan STI policy makers and experts to gain a deeper understanding and insights related to STI policy and strategy development, 2) help future policy makers to develop their STI policy capacity, and to 3) establish an R&D commercialization culture among the STI players in Sri Lanka.

The 2018 Training Program will focus on strengthening the STI policy capacity, which will be arranged for the government officials of MoSTR (Ministry of Science, Technology and Research), and other policy makers and stakeholders concerned. It will help the MoSTR and NASTEC to develop the appropriate knowledge and skills related to policy analysis techniques and R&D commercialization mechanisms. In addition to the training, Korean experts have diagnosed Sri Lanka's STI policy and system via interviews and surveys with a diverse group of STI policy stakeholders.

This training was developed based on an official letter and Project Concept Paper submitted by MoSRT and NASTEC on March 10, 2017 as a Korean official development assistance (ODA)

project. As Sri Lanka is one of Korea's priority partner countries for development cooperation, STEPI will do its utmost to effectively support the Sri Lankan government's effort to promote science and technology for its national development.

The Science and Technology Policy Institute (STEPI) is a Korean government-sponsored research institute and a leading global think-tank that conducts research and analysis on issues pertaining to science, technology and innovation. STEPI works closely with various ministries, regional governments and relevant institutes to support policy design. It also has long experience in providing STI policy consultancy for developing countries and recently launched the International Innovation Cooperation Center (IICC) with the role of conducting STI development cooperation activities with partner countries.

2. Objectives

The title of the project is "2018 Capacity Building Workshop on Science Technology and Innovation (STI) Policy Formulation and R&D Commercialization in Sri Lanka." The program duration is from Jan 1, 2018 to December 31, 2018.

The objectives of the 2018 training program with Sri Lanka are to 1) diagnose and analyze the STI policy and system in Sri Lanka, 2) share Korean practices of development in the National Program for Technological R&D commercialization mechanisms, 3) conduct a local capacity-building workshop (one week in NASTEC), 4) organize a study visit and invitational training (one week in STEPI), 5) provide technical advice for the development of national STI policy formulation techniques, and to 6) produce a final report

3. Training Process Framework

STEPI has developed a training program that takes into account demands for education in developing countries and gaps by country, institution, and individual participants based on varying experiences and know-how in promoting STI policy training programs in developing

countries from 2014.

This training project process is based upon the ADDIE model. The ADDIE model goes through 5 stages: Analysis, Design, Development, Implementation, and Evaluation.

In the early stage of analysis, the target countries or organizations are selected, and a pre-demand survey is conducted.

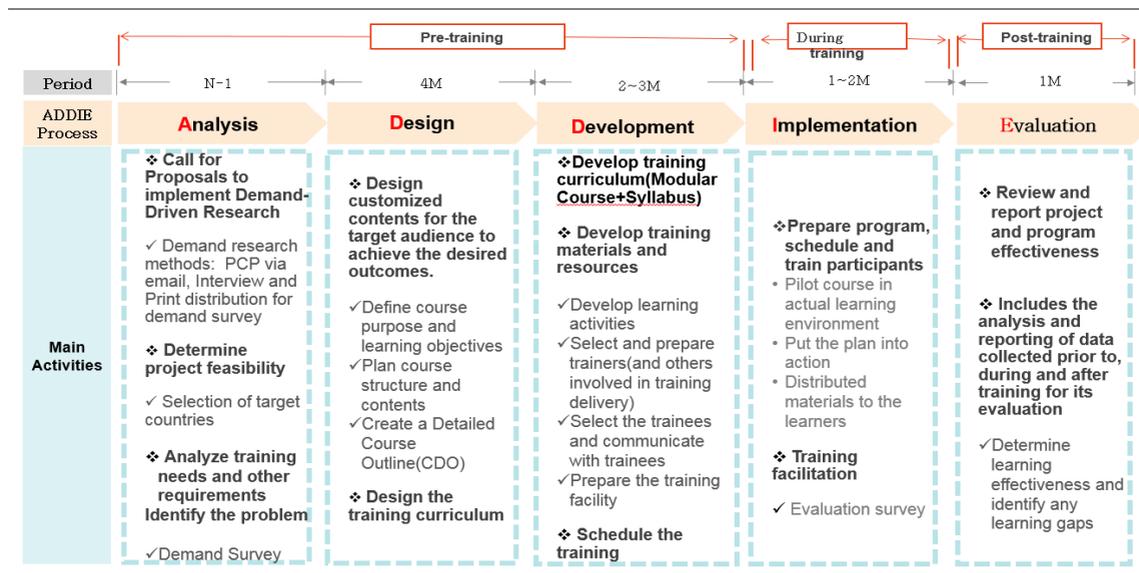
At the design stage, based on the results of the analysis, organizers or coordinators design customized contents for the target audience to achieve the desired outcomes, together with the training curriculum.

During the development stage, organizers or coordinators select lecturers, develop training materials and relevant resources, and schedule the program.

In the implementation phase, organizers or coordinators implement the training program, check goals, lecture times, and interactions between trainers and trainees.

In the evaluation stage, the program evaluation survey is conducted, and the results are to be incorporated when organizing the next programs.

[Figure 1-1] ADDIE Process of STEPI-IICC Training Program



4. Expected Outcomes

The ultimate goals of the STEPI-IICC training program are to share Korean experiences and knowhow in STI policy making and implementation, to develop feasible action plans to develop STI, to enhance STI policy capacities, to establish a cooperative platform, and to support the partner country's socio-economic development.

This training will provide a quantitative STI policy analysis and strategy based on interviews and meetings with key STI policy makers. This analysis and strategy will provide the basis for the development of the National Technological Innovation policy by providing an econometric methodology and for various stakeholders to link research to the productive development. Furthermore, it could raise the level of knowledge related to STI policy planning and technology transfer in general and enhance the participants' abilities to incorporate the learned lessons into practical use.

In addition, the Korea-Sri Lanka partnership will be strengthened and strong networks among key STI experts will be established.

5. Work Plans

5.1 Research Team

The research team is composed of three full-time experts—including a project manager (Ms. Eun Joo Kim) and two STEPI senior research fellows (Dr. Deck Soon Yim and Prof. Young Rak Choi). Additional experts were invited for the delivery of the Capacity Building Workshop based on the topics to be covered. Mr. Byung Woo Jeon serves as the team coordinator.

The research team is responsible for the training program of STI Policy capacity building for high level policy makers and experts of Sri Lanka that will provide knowledge on STI policy formulation techniques and policy implementation mechanisms. For sharing relevant

Korean experiences during the capacity building workshop and providing constructive comments for the progress evaluation of the program, the research team will identify and select additional experts deemed most appropriate based on experience and expertise in the topics.

[Table 1-1] Research Team

Name	Organization	Position	Contact Information
Eun Joo Kim	STEPI	Head of Global Training Program Team	ejkim@stepi.re.kr
Byung Woo Jeon	STEPI	Researcher Project Coordinator	bwjeon@stepi.re.kr
Deok Soon Yim	STEPI	Senior Research Fellow	yimdeoks@stepi.re.kr
Young Rak Choi	STEPI	Senior Research Fellow Emeritus	yrchoi@stepi.re.kr
Hyun Yim	KISTEP	Senior Research Fellow	hyim@kistep.re.kr
Hyun Woo Park	KISTI	Senior Research Fellow	hpark@kisti.re.kr

5.2 Local Research Team

The NASTEC (National Science and Technology Commission) is responsible for advising the government on policies and plans for the development of science and technology and reviewing the performance of science and technology institutions in Sri Lanka. The vision of NASTEC is “To be an excellent advisory body to the government on the potential and use of science and technology to enhance the well-being and prosperity of the people of Sri Lanka”. The NASTEC team works in cooperation with the STEPI research team. The main beneficiary group of the capacity building program is high level policy makers of Sri Lanka (20 people), and NASTEC takes charge of selecting the training participants.

[Table 1-2] Local Research Team

Name	Office	Position	Contact Information
Himali W K Athaudage	MoSTR	Director (IR)	hathaudage@gmail.com
Muditha Liyanagedara	NASTEC	Director/CEO	mudithali@yahoo.com
Kalpa W. Samarakoon	NASTEC	Senior Scientist	kalpa.samarakoon@gmail.com

5.3 Main Activities

5.3.1 Preparation of the Training Program.

From January to March 2018, the STEPI team conducted a literature review related to the STI policy and system of Sri Lanka. Documents regarding STI policy tools of Sri Lanka and relevant materials were provided to the Korean experts prior to Activity 2. A project proposal, training needs assessment survey and Skype meetings were conducted based on the project concept paper and shared with NASTEC for coordination.

5.3.2 Activity 2: Implementing the Training Program.

- a) The STEPI team visited Sri Lanka on May 12–20, 2018 to conduct a local capacity-building workshop and a fact-finding mission.
- b) On the basis of previous findings on Sri Lanka, the STEPI team delivered a capacity-building workshop to share the best practices of Korea that cover key priority areas jointly identified by NASTEC and STEPI. STEPI provided guidelines for the preparation of the capacity building workshop two weeks prior to the workshop and identified relevant experts in Korea.
- c) NASTEC roughly prepared the workshop participants list. Key STI policy makers were expected to be invited to the workshop aimed to provide a platform to secure their buy-in on the existing challenges, current status, goals, and directions. The most appropriate venue and facilities of the workshop were organized by NASTEC.

- d) The workshop sessions were organized on each topic based on which Korean experts were available to share the relevant Korean experiences and their implications for Sri Lanka. An interactive workshop on the methodologies of program development was organized for the officials of NASTEC and the MoSTR and external consultants that participated in the program development.
- e) Additional interviews were arranged for a comprehensive diagnosis of Sri Lankan STI issues and challenges. English was used as the medium of communication.

5.3.3 Activity 3: Review from Consultants & Final Report.

The training performance report was drafted by STEPI and NASTEC by September 31, 2018 for the Korean advisor's comments and review. The final report was completed in November 2018. Additionally, stakeholders from the public and private sector, academia, and research institutes involved in the implementation of the program were invited to the event to disseminate the details of the program. Additionally, a series of presentations related to science and technology policy for economic and social development were provided to share information and diverse experiences. This was aimed at delivering a common path among various stakeholders and policy makers to enhance technological innovation and competitiveness through the program.

6. Project Schedule

The entire schedule of the project is as follows:

[Table 1-3] Project Schedule

Activities	2018											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Project Identification												
Need Assessment Survey												
Local Training Workshop												
Evaluation of the Program												
Final Report												

7. Project Outputs

STEPI provided the following deliverables:

- **Deliverable 1:** Project Proposal (March 25, 2018)
- **Deliverable 2:** Needs Assessment Survey Result (April 20, 2018)
- **Deliverable 3:** Consultation Meeting Minutes and Guidelines for Training Workshop (April 30, 2018)
- **Deliverable 4:** Presentations and Training Materials for Capacity-Building Workshop (May 30- June 5, 2018)
- **Deliverable 5:** Comments and Evaluation on Project (September 2018)
- **Deliverable 6:** STEPI Advisory Committee's Review and Final Report (October 2018)



CHAPTER 2

Design of Training Program

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and R&D Commercialization in Sri Lanka -

Chapter 2. Design of Training Program

1. Background

Sri Lanka has set its national vision to become an upper middle-income country by 2025 by transforming the country into the hub of the Indian Ocean with a knowledge-based, highly comparative, social market economy. To do so, the country is attempting to harness science, technology and innovation to create the conditions that will generate economic growth.

In order to realize this vision of national development with a sound STI capacity, it is necessary for the government to have its officials equipped with knowledge and expertise in establishing and implementing national STI policy, its action plans and an efficient STI system. In most of the cases policy formulation and implementation in Sri Lanka are based on ad hoc approaches and intuition.

The National Science and Technology Commission (NASTEC) under the Ministry of Science, Technology and Research (MoSTR) of Sri Lanka has requested that STEPI provide a customized training program for STI stakeholders related to STI policy development and R&D commercialization mechanisms by submitting a Project Concept Paper (PCP) in March 2017.

The expected means of delivery of the contents of this training program are descriptive course materials and presentations on various policy tools, R&D planning and evaluation techniques and R&D commercialization approaches with relevant case studies taken from Korea. It is expected that a few people from Korea who are experts on the above subject matters would visit Sri Lanka to conduct this training program.

The STEPI team, composed of a few experts on the above subject matters will visit Sri Lanka

for the period of May 30—June 5, 2018 to conduct a local capacity-building workshop and for research purposes. On the basis of the previous findings on Sri Lanka, the STEPI team will deliver a capacity-building workshop to share the best practices of Korea that cover key priority areas jointly identified by NASTEC and STEPI. STEPI will try to provide useful references/guidelines for Science and Technology Policy Tools and R&D Commercialization.

Workshop sessions will be organized for each topic where Korean experts can share relevant Korean experiences and their implications for Sri Lanka. If necessary, an interactive workshop on the methodology of program development will be organized for the officials of NASTEC and MoSTR and external consultants that will participate in the program development.

During the workshop English will be used as the medium of communication, in case interpretation service is needed, MoRST and NASTEC should arrange this together with an appropriate interpreter.

NASTEC will roughly organize the capacity building workshop participant's list. Key STI policy makers shall be invited to the workshop, with the aim of providing a platform to secure their buy-in on the existing challenges, current status, goals, and directions. Organizing the most appropriate venues and facilities for the workshop will be organized by NASTEC.

2. Objectives and Expected Outputs

The objectives of the workshop are to create the space for an exchange of knowledge and experiences between Korean experts and Sri Lanka senior level practitioners in STI policy development on the management & operation of STI policy and R&D commercialization in Sri Lanka, and to explore and understand the role that these can play in creating value and developing an innovation ecosystem.

- 1) To enhance the capacities of senior level officials and managers of the related STI government agencies, academia and research institutions in the areas of STI policy

formulation and implementation tools and R&D commercialization.

- 2) To share the STI policy and R&D commercialization experiences of Korea
- 3) To support in developing STI policies for Sri Lanka and assist in developing programmes for the management and evaluation of national R&D programmes.

3. Training Scheme

In the process of preparing the workshop, STEPI conducted a pre-survey to better understand participants' demands. This is to optimize participants' benefits from the training program on the basis of needs with high expectations, and to make the workshop more effective and fruitful.

The different kind of methods utilized during the training are as follows: (1) lectures and presentations, (2) case studies of best practices, (3) team projects. During the workshop, it is strongly recommended that the participants maintain intense discussions with Korean experts, as well as deriving implications and lessons from the lectures and group discussions.

[Table 2-1] Project Scheme

Module 1	Korea's Economic Success and STI Policy Framework	
Module 2	National Research and Development Program	Feasibility Study and Planning
		Management and Evaluation
Module 3	R&D Commercialization	Licensing
		Spin-Off
Group Project and Discussion, Country Report		
Visiting Sri Lankan S&T Organizations, Action Planning, etc.		

4. Training Period and Venue

The workshop was held at Sri Lanka’s Institute of Development Administration (SLIDA) from May 30—June 5, 2018.

5. Training Organizers

This workshop was organized by the Science and Technology Policy Institute (STEPI) of Korea and the Ministry of Science, Technology and Research and National Science and Technology Commission (NASTEC) of Sri Lanka.

6. Training Participants

The workshop was arranged for government officials, key STI stakeholders and NASTEC officials in the selected topics related to the development of the program. More than 40 government officials and researchers participated in the workshop

6.1 Sri Lanka’s side

[Table 2-2] List of Sri Lankan Participants

No	Institute	Participant Name	Designation	E mail
1	Industrial Technology Institute (ITI)	Dr. I.G.N Hewejulige	SDD- Food Technology Section	ilmi@iti.lk
2		Dr. P. Ranasignhe	SDD-Herbal TechnologySection	pathmasiri@iti.lk
3		Ms. Sureka Liyanage	Research Scientist – Chemical Microbiological Laboratory	sureka@iti.lk

No	Institute	Participant Name	Designation	E mail
4		Dr. C. Wijayawardena	Principal Research Scientist - Herbal Technology Section	drchandima@iti.lk
5		Ms. P. Sujithaperera	Research Scientist – Chemical Microbiology Laboratory	sujitha@iti.lk
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2018 K-Innovation ODA Program with Sri Lanka

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21	Ministry of Science, Research and Technology (MOSTR)	K. Gajaney	Assistant Director	gajaney@hotmail.com
22	Sri Lanka Inventors Commission (SLIC)	Mr. N. N. W. Dolawatta	Director	dolawatta@slic.gov.lk
23	Institute for Modern Technologies	Mrs. Kamani Ediriweera	Deputy Director General (Technical Operations)	kamani@accmt.ac.lk
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26		Dr. G.B. Gunawardana	Vice Chairman - Policy	gbgunawardana@hotmail.com
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28		Mr. M.M.A.S. Maheepala	Principal Scientist	
29	Rice Research and Development Institute	Mr. K. G. P. B. Karunarathne	Assistant Director	pathmasirik@hotmail.com
30	Sri Lanka Institute of Nanotechnology (SLINTEC)	Mr. Ravindra Soysa	Executive – Strategic Planning	ravindaS@slintc.lk
31	National Science Foundation (NSF)	Dr. P. R. M. P. Dilrukshi	Principal Scientific Officer	dilrukshi@nsf.ac.lk
32		Ms. Chamika Dharmasena	Scientific officer	chamikad@nsf.gov.lk
33		Ms. Dilushi Munasinghe	Scientific officer	dilushi@nsf.gov.lk
34		Ms. Upuli Rathnayake	Scientific officer	upuli@nsf.gov.lk

No	Institute	Participant Name	Designation	E mail
35		Ms. Ayoma Amarasekara	Scientific officer	ayoma@nsf.gov.lk
36	Field Crop Research and Development Institute (FCRDI)	Mrs. K.N.C Gunawardena	Principal Scientists	nishanthigun@yahoo.com
37		Dr. M. S. Nijamudeen	Deputy Director	msnija66@yahoo.com
38		Dr. T. Karuneinadan	ADA (Res)	tkarunainathan@yahoo.com
39	Tea Research Institute (TRI)	Dr. H. W. Shyamalee	Principal Research Officer	rchamath@yahoo.com

6.2 Korean side

[Table 2-3] List of Korean Participants

No	Name	Organization	Position	Contact Information
1	Eun Joo Kim	STEPI	Head of Global Training Program Team	ejkim@stepi.re.kr
2	Deok Soon Yim	STEPI	Senior Research Fellow	yimdeoks@stepi.re.kr
3	Young Rak Choi	STEPI	Senior Research Fellow Emeritus	yrchoi@stepi.re.kr
4	Hyun Yim	KISTEP	Senior Research Fellow	hyim@kistep.re.kr
5	Hyun Woo Park	KISTI	Senior Research Fellow	hpark@kisti.re.kr
6	Byung Woo Jeon	STEPI	Researcher Project Coordinator	bwjeon@stepi.re.kr

7. Training Methodology

The training will consist of two methods: (1) lectures and presentations, (2) Sri Lankan case studies. During the workshop, it is strongly recommended that the participants maintain intense discussions with Korean experts, as well as deriving implications and lessons from lectures and group discussions.

[Table 2-4] Training Methodology

Methods	Module Details
Lectures and Presentations	<p>The overall lectures and presentations were conducted as two separate training workshops on STI policy formulation and R&D commercialization.</p> <ol style="list-style-type: none"> 1) National Research and Development Program <ul style="list-style-type: none"> - Feasibility Study and Planning - Management and Evaluation 2) R&D Commercialization <ul style="list-style-type: none"> - Licensing - Spin-Off - Q&A session for each lecture and the implications of Korean experience
Sri Lankan Case Studies	<ul style="list-style-type: none"> - Sri Lanka's economic development model and challenges - Sri Lanka's policy issues and challenges concerning the National STI Policy



CHAPTER 3

Implementation of Training Program

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and R&D Commercialization in Sri Lanka -



Chapter 3. Implementation of Training Program

1. Training Workshop Schedule

[Table 3-1] Training Workshop Schedule

Day	Time	Description
May 30 th (Wed.)	09:00 – 09:30	Registration & Tea Break
	09:30 – 10:00	[Opening Ceremony] - Opening Remarks (STEPI) - Welcoming Address (MoSTR) - Introduction of the Workshop and Participants
	10:00 – 11:30	[Session 1] National Research and Development Program: Feasibility Study and Planning Dr. Hyun Yim (Senior Research Fellow, KISTEP)
	11:30 – 12:00	Discussion on the issues raised in Session 1
	12:00 – 14:00	Lunch
	14:00 – 15:30	[Session 2] National Research and Development Program: Management and Evaluation Dr. Hyun Yim (Senior Research Fellow, KISTEP)
	15:30 – 16:00	Discussion on the issues raised in Session 2
	May 31 st (Thur.)	10:00 – 11:30
11:30 – 12:00		Discussion on the issues raised in Session 3
12:00 – 13:30		Lunch

2018 K-Innovation ODA Program with Sri Lanka

Day	Time	Description
	13:30 – 14:00	[MoSTR-NASTEC Presentation] Sri Lanka's economic development model and challenges
	14:00 – 14:30	Tea Break
	14:30 – 16:00	[Session 4] Framework of Korea's Science and Technology Innovation Policy Prof. Young-Rak Choi (Senior Research Fellow Emeritus, STEPI)
	16:00 – 16:30	Discussion on the issues raised in Session 4
	16:30 – 17:00	[MoSTR-NASTEC Presentation] Sri Lanka's policy issues and challenges concerning National STI Policy
June 1st (Fri.)	10:00 – 16:00	[Site Visits and Meetings] - Meeting with MoSTR, NASTEC and relevant institutes - Visit to the Korean Embassy and KOICA
June 4th (Mon.)	10:00 – 11:30	[Session 5] R&D Commercialization: Licensing Dr. Hyun Woo Park (Senior Research Fellow, KISTI)
	11:30 – 12:00	Discussion on the issues raised in Session 5
	12:00 – 13:30	Lunch
	13:30 – 15:00	[Session 6] R&D Commercialization: Spin-Offs Dr. Hyun Woo Park (Senior Research Fellow, KISTI)
	15:00 – 15:30	Discussion on the issues raised in Session 6
	16:00 – 18:00	[Study Visit] Visiting a R&D Company (<i>Nano tech. or Bio tech. firm</i>)
<i>The workshop will be facilitated by Dr. Deok Soon Yim, Senior Research Fellow, STEPI</i>		
June 5th (Tues.)	10:00 – 11:30	[Group Workshop] 1. Lessons and implications of Korea's experiences and ways to improve Sri Lankan STI policy and system 2. Lessons and implications from Korea's experiences and ways to improve Sri Lankan national R&D programs 3. Lessons and implications from Korea's experiences and ways to promote R&D commercialization in Sri Lanka
	11:30 – 12:00	Certificate Awarding and Program Evaluation
	12:00 – 14:00	Lunch

2. Training Workshop Summary

[Session I]

National Research and Development Programme: Preliminary Feasibility Study

by Dr. Hyum Yim, Senior Research Fellow, Korean Institute of S&T Evaluation and Planning (KISTEP).

Summary of the lecture

Dr. Yim explained the significant role of the Preliminary Feasibility Study (PFS) for R&D programmes in effective management of R&D projects which leads to national economic development. He shared some success stories of implementing the PFS programme. Below are some of important areas in PFS discussed during the session.

- 1) The evaluation system of national R&D programmes
- 2) Needs and purposes of a Preliminary Feasibility Study for R&D programmes
- 3) PFS guidelines
- 4) The analytical structure of PFS for national R&D programmes
- 5) Three major feasibility criteria of PFS for national R&D programmes
- 6) Critical factors in planning R&D programmes

Key points raised in the discussion session

During the discussion session, several questions were asked by participants and important and relevant issues were discussed—and are summarized below.

A lack of national R&D evaluation programmes in Sri Lanka and issues when adopting PFS were similar to those of Korea. It was pointed out that there is a huge investment difference for R&D in Sri Lanka and Korea, at present R&D expenditure in Sri Lanka is less than 1.0% of GDP, and thus large investment for R&D in Sri Lanka is unlikely and the role of the PFS

programme may not be directly applicable to the present scale of R&D in Sri Lanka. However, the importance of a national R&D evaluation and monitoring scheme was highlighted. It was further noted that there are several R&D project proposal evaluation programmes at different ministerial and institutional levels in Sri Lanka. Dr. Yim explained that at an early stage in Korea also, there were such individual schemes in ministries and even at current small R&D projects (less than USD\$50 million) are not included in the PFS programme.

[Session II]

National Research and Development Programme: Management and Evaluation

by Dr. Hyum Yim, Senior Research Fellow, Korean Institute of S&T Evaluation and Planning (KISTEP).

Summary of the lecture

Dr. Yim provided an overview of the involvement of the Korean government in the development of national R&D programmes and explained in detail the process of valuation of national R&D programmes with examples taken from the Korean R&D performance evaluation system. Below are some of important areas in the evaluation of national R&D programmes discussed during the lecture.

- 1) Evaluation of national R&D programmes
- 2) Development of an R&D evaluation system
- 3) R&D performance evaluation
- 4) Self/Meta evaluation systems
- 5) In-depth evaluation systems
- 6) Policy directions and issues

Key points raised in the discussion session

During the discussion session, several questions were asked by the participants relating to

the Korean government's commitment to investment in R&D and data policy when conducting in-depth evaluations of R&D projects, and human resource involvement in in-depth evaluation and resource mobilization and investment. All questions were well answered by the Korean experts and the important and relevant issues discussed are summarized below.

A lack of proper coordination among different sectors such as national development strategy, industry priorities, education, STI policy, R&D and innovation framework and foreign direct investments in Sri Lanka were discussed as being major bottle necks in achieving national development goals and the implementation of various policies which have been introduced to Sri Lanka.

[Sri Lanka Presentation I]

Sri Lanka's Economy and Future Planning

by Mr. Deshal Pandithage, Sri Lanka

Summary of the presentation

Mr. Deshal Pandithage explained the current economic status of Sri Lanka, emphasizing major issues currently faced by the Sri Lankan economy including an increased trade gap, insignificant contributions by the industrial sector to national export revenue and a high government debt rate. Furthermore, he explained the major focus areas of Sri Lankan economic development including port city projects, tourism and value-added exports.

Key points raised in the discussion session:

During the discussion session, Korean experts asked questions about strategic plans for national industrial and non-conventional exports and road maps for such sectors' development—which should have maintained direct coordination with national STI policy. It was generally discussed among participants that the key issues in the Sri Lankan context are the lack of integrated approaches and the non-implementation of policies.

[Session III]

Critical Factors of Korea's Economic Success

by Prof, Young Rak Choi, Senior Research Fellow Emeritus, STEPI, Korea.

Summary of the lecture

Professor Choi explained the critical factors behind Korea's economic success with statistical illustrations and a review of the major policy and political interventions which developed the nation up to the level of a global economic power. Below are some of the important areas which may be helpful in the Sri Lankan context and were discussed during the lecture.

- 1) The evolution of major economic indicators.
- 2) The choice of large investors or SMEs as a driving force in industrial and economic growth
- 3) Creating the right institutions, government involvement and policy capacities
- 4) STI capacity-building
- 5) The identification of key driving forces to be promoted within each strategic sector
- 6) Tilting into strategic priority areas
- 7) Direct interactions between government and private firms.
- 8) Consistency between policy goals and policy tools

Key points raised in the discussion session:

During the discussion session, questions were asked by the participants referring to the Korean government's commitment to making decisions on supporting the private sector in local industry developments and the role of FDI in national economic development and the experts' opinions on strategic sectors for Sri Lanka in achieving industrial or economic growth. In this discussion nanotechnology was proposed as one of the potential areas but the experts view on this was critical, as Sri Lanka is still at very low competency levels in both

technology and capital investments in high-tech industries and R&D, and as such high-tech sectors such as nanotechnology may not be suitable as prioritized areas but can be included in long-term targets. In answering the question on FDI, the experts explained that in the Sri Lankan context FDI can be helpful in bringing new technologies but it has a limited scope in national technology developments. Therefore, in the discussion on the development of technologies in the country, investment in R&D and policy frameworks were highlighted in achieving national economic development goals.

[Session IV]

Framework of Korea's Science and Technology Innovation Policy

by Prof, Young-Rak Choi, Senior Research Fellow Emeritus, STEPI, Korea.

Summary of the lecture

Professor Choi explained the framework of Korea's STI policy, mainly referring to its historic background, the evolution of Korean STIs and major policy instruments for STI development. The following points discussed during the lecture are useful in development of such a policy framework in Sri Lanka:

- 1) Setting up of STI policy goals and their successive changes
- 2) Approaches in STI governance
- 3) STI manpower policy
- 4) R&D policy and the setting up of missions and goals in national R&D programmes
- 5) The involvement of the private sector: mode of technological innovation and commercialization
- 6) Major policy instruments for STI development
 - i. A comprehensive STI master plan with short, medium and long-term actions and goals
 - ii. STI man power planning

- iii. Diagnosis of situation and trend analysis
- iv. Policy tools to mobilize financial resources
- v. National R&D programmes
- vi. Autonomous management systems of public entities
- vii. Exploitation of foreign resources
- viii.** Economic analysis of STI investment

Key points raised in the discussion session:

- 1) It was identified that current government investment on R&D, innovation and STI is not sufficient, however this should gradually increase alongside a comprehensive STI plan for the country. It was discussed that the assessment of the current impacts of STI investment in the country should be undertaken. For this, a scientific model should be developed at a national level, as per the Korean experts view the Denison model can be used to develop such an assessment.
- 2) The importance of a national R&D programme along with a national strategic plan for STI manpower development was discussed. A lack of trained and qualified STI personnel and the so-called 'brain drain' are the major issues currently faced by Sri Lanka. Even though several policies and strategic plans aim to solve this problem, at present this problem is at its highest level—threatening a further depletion in the global STI ranking.

[Sri Lanka Presentation II]

Sri Lanka's Policy Issues and Challenges Concerning National STI policy

by Dr. Dr P.R.M.P. Dilrukshi Ranathunge - Head, National Science and Technology Policy Division, NSF, Sri Lanka

Summary of the lecture

Dr. Dilrukshi explained historic approaches in Sri Lanka's STI policy development mainly focusing on evolution of Sri Lankan economic policies from the colonial time and successive developments in STI policies. However, it was mentioned that non-of these policies were

implemented to satisfactory levels.

Key points raised in the discussion session:

Korean experts pointed out several loopholes in Sri Lanka's STI policy, such as the lack of proper resource allocation, and road maps and action plans that should be coherent with other national strategic development plans. Furthermore it was highlighted that any policy is not a policy until it is implemented.

[Session V]

R&D Commercialization: Licensing

By Dr. Hyun Woo Park, Senior Research Fellow, KISTI, Korea.

Summary of the lecture

Dr. Park explained R&D commercialization models and methods with detailed illustrations on conceptual models and Korean experiences. The following points were discussed in detail:

- 1) Definitions and basic concepts of commercialization of innovations.
- 2) Distinguishing innovations from inventions
- 3) Types of technological innovation
- 4) The process of R&D commercialization
- 5) A model for R&D commercialization
- 6) The valley of death and TRL analysis
- 7) Exploitation of strategy of technologies
- 8) Forms of R&D commercialization
 - i. Licensing concepts and types
 - ii. Licensing strategies of Public Research Organizations (PROs).

iii. Spin-offs concepts and types

Key points raised in the discussion session:

- 1) Issues relating to the adoption of an evaluation of Technology Readiness Level (TRL) to Sri Lankan innovations were discussed. It was highlighted that evaluation schemes should be adopted case by case, depending on the technology sector.
- 2) Concerns were raised about human resource availability and costs for the processes of technology concept analysis, market need assessments and venture assessments.
- 3) In line with developments in the area of R&D commercialization in Sri Lanka, the existing huge gap in research development and innovation sector where existing level is at far below the required level for national level implementation of R&D commercialization programme should be filled.

[Session VI]

R&D Commercialization: Spin-Offs

by Dr. Hyun Woo Park, Senior Research Fellow, KISTI, Korea

Summary of the lecture

Dr. Park explained R&D commercialization, utilizing spin-offs with detailed illustrations drawing on Korean experiences. The following points were discussed in detail:

- 1) R&D commercialization in Korea
- 2) Policies on R&D commercialization of Korean PROs
 - i. The national policy framework for commercialization of public R&D
 - ii. Funds for technology transfer and commercialization.
- 3) Promotion of R&D commercialization of PROs
 - i. Technology valuation to promote R&D commercialization.
 - ii. Efficiency of technology transfers and commercialization.

- 4) Success in technology businesses
 - i. Promoting university-industry collaborations
 - ii. First views of business plans
 - iii. Key success factors in technology businesses

Key points raised in the discussion session

- 1) Issues relating to existing laws and other legal instruments in relation to technology commercialization in PROs and Universities in Sri Lanka were discussed. It seems that Sri Lanka needs a paradigm shift in all these sectors in order to achieve these modern development goals.
- 2) The commitment of the Korean government at an early stage of industrialization particularly in supporting the private sector, whose engagement in the commercialization of local innovations was inquired about by participants. In reply, Korean experts explained the various support schemes available, including financial and policy schemes given to the private sector for R&D commercialization, however there are evaluation and monitoring programmes followed by awards for performers and penalties for losers. Furthermore, the importance of such monitoring programmes in achieving national success in Sri Lankan context was also discussed.

3. Training Workshop Publicity Activities

The Sri Lankan Scientist

BUY **The Sri Lankan
Scientist** HERE
The Premier Science Magazine in Sri Lanka

≡ MAIN MENU



NEWS

Workshop on Capacity Building in STI Policy Formulation and R&D Commercialization Starts in Colombo

May 31, 2018 - by Sisira Kumara - Leave a Comment



(Press Release: May 31, 2018)



[Home](#) / [Workshop on capacity building in science, technology and innovation](#)

Workshop on capacity building in science, technology and innovation

Tuesday, June 12, 2018 - 01:00

Local

Print Edition



Participants of the workshop.

A workshop on capacity building in Science, Technology and Innovation, Policy Formulation, Research and Development, and Commercialization was held at the Sri Lanka Institute of Development Administration (SLIDA), recently.

The workshop was held from May 30 to June 5. It was organised by the Science and Technology Policy Institute of Korea, the Science, Technology and Research Ministry and the National Science

(Press Release: June 12, 2018)

Workshop on capacity building in science, technology and innovation

A workshop on capacity building in Science, Technology and Innovation, Policy Formulation, Research and Development, and Commercialization was held at the Sri Lanka Institute of Development Administration (SLIDA), recently.

The workshop was held from May 30 to June 5. It was organised by the Science and Technology Policy Institute of Korea, the Science, Technology and Research Ministry and the National Science and Technology Commission. It was arranged for government officials and researchers in Sri Lanka.

The workshop was designed to enhance the capacities of senior-level officials and managers of the related Science and Technology governmental agencies, academia and research institutions. The main purposes of the workshop are to share Science, Technology and Innovation policy experience of Korea and to develop Science, Technology and Innovation policies and managing



Participants of the workshop.

national research and development programmes.

The National Science and Technology Commission and the Science, Technology and Research Ministry requested mainly to share Korean experiences on how to formulate and develop the national Science, Technology and Innovation policy and national Research and Development programme policy by inviting Korean experts to Sri Lanka.

The outputs expected from this workshop are to acquire essential

knowledge on framework, concept, schemes and tools involved in developing STI policies and managing national Research and Development programmes.

It is also to share Korean experiences and practices which were applied in the fields as well as to explore policy ideas to apply in the Sri Lanka context through discussions with Korean experts.

Additional Secretary to the Ministry of Science, Technology and Research H. M. B. C. Herath, Additional Secretary to Administration

and Finance Nandani Samarawickrama, Senior Scientist Dr. Kalpa Samarakoon, commission member Prof. Gunapala Nanayakkara, Acting Director of the National Science and Technology Commission Engineer Ananda Namal, National Policies and Economic Affairs Additional Secretary U. G. Rathnasiri, Korean embassy First Secretary Miyeon Kwon and delegates representing Science, Technology and Policy Institute, Korea Prof. Young-Rak Choi, Dr. Hyun Yim, Eun Joo Kim and Byung Woo Jeon participated.

(Press Release: June 12, 2018)

4. Training Workshop Book

Capacity Building & Trainings



Workshop on Capacity Building in STI Policy Formulation and R&D Commercialization

Date 30th May – 5th June 2018

Venue Sri Lanka Institute of Development Administration (SLIDA)



STePI SCIENCE AND
TECHNOLOGY POLICY
INSTITUTE

IICC International Innovation
Cooperation Center


අධ්‍යයන හා තාක්ෂණ අමාත්‍යාංශය
Ministry of Science, Technology and Research

NASTeC



Capacity Building & Trainings

Workshop on Capacity Building in STI Policy Formulation and R&D Commercialization

Date 30th May – 5th June 2018

Venue Sri Lanka Institute of Development Administration (SLIDA)

Background

Sri Lanka has set its national vision to become an upper middle-income country by 2025 by transforming the country into the hub of the Indian Ocean with a knowledge-based, highly comparative, social market economy. To do so, the country tries to harness science, technology and innovation to create the conditions which will generate economic growth.

In order to realize the vision of national development with sound STI capacity, it is necessary for the government to have the officials equipped with knowledge and expertise in establishing and implementing national STI policy, its action plans and an efficient STI system. In most of the cases policy formulation and implementation in Sri Lanka are based on ad hoc approaches and intuition.

The National Science and Technology Commission (NASTEC) under the Ministry of Science, Technology and Research (MoSTR) of Sri Lanka has requested STEPI to provide a customized training program for STI stakeholders about STI policy development and R&D commercialization mechanisms by submitting the Project Concept Paper (PCP) in March 2017.

The expected means of delivery of contents of this training program are descriptive course materials and presentations on various policy tools, R&D planning and evaluation techniques and R&D commercialization approaches with relevant case studies from Korea.

It is expected that a few of resource persons from Korea who are experts on above subject matters would visit Sri Lanka to conduct this training program.

Objectives and Expected Outputs

In accordance with this objective, this workshop was designed to enhance capacities of senior-level officials and managers of the related S&T governmental agencies, academia and research institutions. This training was arranged to help governmental officials who are involved STI policy-making and R&D program management improve practical application capabilities in their fields. The main purposes of this workshop are: a) share STI policy experience of Korea, and b) developing STI policies and managing national R&D programs.



Capacity Building & Trainings

The NASTEC and MoSTR requested mainly to share Korean experiences on how to formulate and develop the national STI policy and national R&D program policy by inviting Korean experts to Sri Lanka. The outputs expected from this training workshop are as follows:

- ▶ Acquire essential knowledge on framework, concept, schemes and tools involved in developing STI policies and managing national R&D programs.
- ▶ Share Korean experiences and practices which were applied in the fields
- ▶ Explore policy ideas to apply in the Sri Lanka context through active discussion with Korean experts in the fields

Organizers

This workshop is organized by STEPI of Korea, the Ministry of Science, Technology and Research (MoSTR) of Sri Lanka and The National Science and Technology Commission (NASTEC)

Participants

This workshop is arranged for the government officials and researchers of Sri Lanka

Training Methodology

The form of the workshop is consisted of three types: a) lectures, b) group discussions and c) study visits. During the workshop, it is strongly recommended that the participants are kept on discussing with the Korean experts intensely as well as deriving implications and lessons for Sri Lanka from the lectures

Workshop on Capacity Building in STI Policy Formulation and R&D Commercialization

Program

Day	Time	Description
May 30th (Wednesday)	09:00 – 09:30	Registration & Tea Break
	09:30 – 10:00	[Opening Ceremony] Opening Remarks(STEPI) Welcoming Address(MoSTR) Introduction of the Workshop and Participants
	10:00 – 11:30	[Session 1] National Research and Development Program: Preliminary Feasibility Study <i>Dr. Hyun Yim (Senior Research Fellow, KISTEP)</i>
	11:30 – 12:00	Discussion on the issue of Session 1
	12:00 – 14:00	Lunch
	14:00 – 15:30	[Session 2] National Research and Development Program : Management and Evaluation <i>Dr. Hyun Yim (Senior Research Fellow, KISTEP)</i>
	15:30 – 16:00	Discussion on the issue of Session 2
	10:00 – 11:30	[Session 3] Critical Factors of Korea's Economic Success <i>Prof. Young-Rak Choi (Senior Research Fellow Emeritus, STEPI)</i>
May 31st (Thursday)	11:30 – 12:00	Discussion on the issue of Session 3
	12:00 – 13:30	Lunch
	13:30 – 14:00	[MoSTR-NASTEC Presentation] Sri Lanka's economic development model and challenges
	14:00 – 14:30	Tea Break
	14:30 – 16:00	[Session 4] Framework of Korea's Science and Technology Innovation Policy <i>Prof. Young-Rak Choi (Senior Research Fellow Emeritus, STEPI)</i>
	16:00 – 16:30	Discussion on the issue of Session 4
	16:30 – 17:00	[MoSTR-NASTEC Presentation] Sri Lanka's policy issues and challenges concerning National STI Policy



Capacity Building & Trainings

June 1st (Friday)	10:00 – 16:00	[Site Visits and Meetings] - Meeting with MoSTR, NASTEC and relevant institutes - Visit to the Korean Embassy and KOICA
	10:00 – 11:30	[Session 5] R&D Commercialization: Licensing Dr. Hyun Woo Park (Senior Research Fellow, KISTI)
June 4th (Monday)	11:30 – 12:00	Discussion on the issue of Session 5
	12:00 – 13:30	Lunch
	13:30 – 15:00	[Session 6] R&D Commercialization: Spin-Offs Dr. Hyun Woo Park (Senior Research Fellow, KISTI)
	15:00 – 15:30	Discussion on the issue of Session 6
	16:00 – 18:00	[Study Visit] Visiting a R&D Company (Nano tech. or Bio tech. firm)
The workshop will be facilitated by Dr. Deok Soon Yim, Senior Research Fellow, STEPI		
June 5th (Friday)	10:00 – 11:30	[Group Workshop] 1. Lessons and implications from the Korean experiences and ways to improve Sri Lankan STI policy and system 2. Lessons and implications from the Korean experiences and ways to improve Sri Lankan national R&D programs 3. Lessons and implications from the Korean experiences and ways to promote R&D commercialization in Sri Lanka
	11:30 – 12:00	Certificate Awarding and Program Evaluation
	12:00 – 14:00	Lunch



CHAPTER 4

Evaluation of Training Program

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and R&D Commercialization in Sri Lanka -



Chapter 4. Evaluation of Training Program

1. Overview of the Evaluation Survey

Overall most participants were satisfied with each lecture. They mostly wanted to apply the knowledge that they learned in their work/practice. This is quite a significant result of the workshop. Moreover, participants highly recommended this workshop to their colleagues. It demonstrated that the participants benefited from the workshop.

Additionally,, participants were postively satisfied with lecturers' sound knowledge and speeches. Moreover, most of the participants agreed that the lecture objectives were stated clearly at the beginning of the lectures.

However, it was felt that some of the lectures should focus on their topics in more depth. Some of the topics were too complicated to finish within a single 2-hour lecture. The next training workshop must consider the knowledge level of participants.

2. Survey Results and Analysis

Evaluation Contents	Satisfaction Level
1. The topics covered in the lecture were relevant to me.	4.18
2. The content was well-organized and easy to follow.	4.11
3. The lecture was helpful for enhancing my understanding of the field.	4.11
4. The lecture would be helpful to strengthen the institutional capacity of my organization.	3.92
5. The time allotted for the lecture was sufficient.	3.92
6. The pace of the lecture was good.	4.07
7. The lecturer was sound in knowledge and speech.	4.11
8. The lecturer noticed indications when trainees needed help.	3.96
9. The objectives for the lecture were stated clearly at the beginning of the lecture.	4.03
10. The lecturer conveyed the topic in depth.	3.96
11. The Q&A and discussion was adequate to enhance my understanding.	4.11
12. I will be able to apply the knowledge learned in my work/practice.	3.88
13. I will recommend this lecture to others.	4.11
Overall	4.03

Session 01:**Organiser: Dr. Hyum Yim, Korean Institute of S&T Evaluation and Planning**

Total number of participants who submitted evaluation sheets: 27

[Table 4-1] Summary of results of evaluation questionnaire for session 1

Assessed criteria	Response (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The topic covered in the lecture was relevant to me	25.9	66.6	7.4		
2. The content was well organized and easy to follow	18.5	74.1	7.4		
3. The lecture was helpful for understanding the field.	22.2	66.6	11.1		
4. The lecture would be helpful to strength the institutional capacity for my organization.	14.8	66.6	14.8	3.7	
5. The allotted time for the lecture was sufficient.	14.8	66.6	14.8	3.7	
6. The pace of the lecture was good.	18.5	70.3	11.1		
7. The lecturer was sound in knowledge and speech	18.5	74.0	7.4		
8. The lecturer noticed indications when trainees needed help	11.1	74.0	14.8		
9. The objectives for the lecturer were stated clearly at the beginning of the lecture	14.8	74.0	11.1		
10. The lecturer conveyed the topic in depth	18.5	62.9	14.8	3.7	
11. The Q&A and discussion was adequate to enhance my understanding	18.5	74.0	7.4		
12. I will be able to apply the knowledge learned in my work/practice	7.4	74.0	18.5		
13. I will recommend this lecture to others	18.5	74.0	7.4		

According to our survey results, 92.5% of participants strongly agree/agree that the lecture was relevant to them. Moreover, 81.4% of participants strongly agree/agree that the lecture was helpful to strengthen the institutional capacity for their organization. Only 3.7% of participants disagreed that the lecture would be helpful to strengthen the institutional capacity for their organization.

Additionally, participants mostly agree (92.5%) that they were satisfied that their lecturer was sound in knowledge and speech. Moreover, 74% of participants agree that the lecturer's objectives were stated clearly at the beginning of the lecture.

Most of participants (74% - agree, 7.4% - strongly agree) will be able to apply the knowledge learned in their work/practice. Furthermore, most of participants (74% - agree, 18.5% - strongly agree) will recommend this lecture to others.

Session 02: National Research and Development Programme: Management and Evaluation**Organizer: Dr. Hyum Yim, Korean Institute of S&T Evaluation and Planning**

Total number of participants who submitted evaluation sheets: 30

[Table 4-2] Summary of results of evaluation questionnaire for session 2

Assessed criteria	Response (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The topic covered in the lecture was relevant to me	26.6	63.3	10.0		
2. The content was well organized and easy to follow	20.0	73.3	6.6		
3. The lecture was helpful for understanding the field.	33.3	60.0	6.6		
4. The lecture would be helpful to strengthen the institutional capacity of my organization.	13.3	73.3	13.3		
5. The allotted time for the lecture was sufficient.	20.0	63.3	13.3	3.3	
6. The pace of the lecture was good.	16.6	73.3	10.0		
7. The lecturer was sound in knowledge and speech	26.6	66.6	6.6		
8. The lecturer noticed indications when trainees needed help	16.6	73.3	10.0		
9. The objectives for the lecturer were stated clearly at the beginning of the lecture.	13.3	66.6	13.3	6.6	
10. The lecturer conveyed the topic in depth	20.0	70.0	10.0		
11. The Q&A and discussion was adequate to enhance my understanding	16.6	76.6	6.6		
12. I will be able apply the knowledge learned in my work/practice	6.6	80.0	13.3		
13. I will recommend this lecture to others	16.6	73.3	10.0		

According to our survey results, 89.9% of participants strongly agree/agree that the lecture was relevant to them. Moreover, 86.6% of participants strongly agree/agree that the lecture was helpful to strengthen the institutional capacity of their organization.

Additionally, participants mostly agree (93.2%) that they were satisfied with the lecturer, who was sound in knowledge and speech. Moreover, 79.9% of participants agree that the lecturer's objectives were stated clearly at the beginning of the lecture.

Most of participants (80% - agree, 6.6% - strongly agree) will be able to apply the knowledge learned in their work/practice. Furthermore, most of the participants (73.3% - agree, 16.6% - strongly agree) will recommend this lecture to others.

Session 03: Critical Factors behind Korea's Economic Success**Organizer: Prof. Young Rak Choi**

Total number of participants who submitted evaluation sheets: 25

[Table 4-3] Summary of results of evaluation questionnaire for session 3

Assessed criteria	Response (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The topic covered in the lecture was relevant to me	20.0	68.0	12.0		
2. The content was well organized and easy to follow	16.0	80.0	4.0		
3. The lecturer was helpful for understanding the field.	24.0	72.0	4.0		
4. The lecture would be helpful to strengthen the institutional capacity for my organization.	8.0	56.0	32.0	4.0	
5. The allotted time for the lecture was sufficient.	24.0	72.0	4.0		
6. The pace of the lecture was good.	16.0	76.0	8.0		
7. The lecturer was sound in knowledge and speech	28.0	68.0	4.0		
8. The lecturer noticed indications when trainees needed help	8.0	80.0	12.0		
9. The objectives for the lecturer were stated clearly at the beginning of the lecture.	16.0	68.0	16.0		
10. The lecturer conveyed the topic in depth	24.0	72.0	4.0		
11. The Q&A and discussion was adequate to enhance my understanding	20.0	48.0	16.0		
12. I will be able to apply the knowledge learned in my work/practice	4.0	64.0	24.0	8.0	
13. I will recommend this lecture to others	20.0	72.0	8.0		

According to our survey result, 88% of participants strongly agree/agree that the lecture was relevant to them. Moreover, 64% of participants strongly agree/agree that the lecture was helpful to strength the institutional capacity of their organization. Only 4% of participants disagreed that the lecture would be helpful to strengthen the institutional capacity for their organization.

Additionally, participants mostly agree (96%) that they were satisfied that their lecturer was sound in knowledge and speech. Moreover, 84% of participants agree that the lecturer's objectives were stated clearly at the beginning of the lecture.

Most participants (64% - agree, 4% - strongly agree) will be able to apply the knowledge learned in their work/practice. Futhermore, most participants (72% - agree, 20% - strongly agree) will recommend this lecture to others.

Session 04: Framework of Korea's Science and Technology Innovation Policy**Organizer: Prof. Young Rak Choi**

Total number of participants who submitted evaluation sheets: 20

[Table 4-4] Summary of results of evaluation questionnaire for session 4

Assessed Criteria	Response (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The topic covered in the lecture was relevant to me	20.0	75.0	5.0		
2. The content was well organized and easy to follow	15.0	85.0			
3. The lecture was helpful for understanding the field.	20.0	75.0	5.0		
4. The lecture would be helpful to strengthen the institutional capacity for my organization.	10.0	70.0	20.0		
5. The allotted time for the lecture was sufficient.	30.0	60.0	10.0		
6. The pace of the lecture was good.	15.0	70.0	15.0		
7. The lecturer was sound in knowledge and speech	25.0	65.0	10.0		
8. The lecturer noticed indications when trainees needed help	5.0	80.0	15.0		
9. The objectives for the lecturer were stated clearly at the beginning of the lecture.	15.0	70.0	15.0		
10. The lecturer conveyed the topic in depth	20.0	55.0	25.0		
11. The Q&A and discussion was adequate to enhance my understanding	25.0	60.0	15.0		
12. I will be able apply the knowledge learned in my work/practice	20.0	55.0	25.0		
13. I will recommend this lecture to others	20.0	60.0	15.0		

According to our survey results, 95% of participants strongly agree/agree that the lecture was relevant to them. Moreover, 80% of participants strongly agree/agree that the lecture was helpful to strengthen the institutional capacity of their organization.

Additionally, participants mostly agree (90%) that they were satisfied that the lecturer was sound in knowledge and speech. Moreover, 85% of participants agree that the lecturer's objectives were stated clearly at the beginning of the lecture.

Most participants (55% - agree, 20% - strongly agree) will be able to apply the knowledge learned in their work/practice. Furthermore, most participants (60% - agree, 20% - strongly agree) will recommend this lecture to others.

Session 05: R&D Commercialization.**Organizer: Prof. Hyun Woo Park**

Total number of participants who submitted evaluation sheets: 22

[Table 4-5] Summary of results of evaluation questionnaire for session 5

Assessed criteria	Response (%)				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The topic covered in the lecture was relevant to me	18.1	68.1	13.6		
2. The content was well organized and easy to follow	13.6	68.1	13.6	4.5	
3. The lecture was helpful for understanding the field.	18.1	63.6	18.1		
4. The lecture would be helpful to strengthen the institutional capacity for my organization.	9.0	72.7	18.2		
5. The time allotted for the lecture was sufficient.	27.3	50.0	18.2	4.5	
6. The pace of the lecture was good.	13.6	63.6	13.6	9.1	
7. The lecturer was sound in knowledge and speech	31.8	59.0	9.0		
8. The lecturer noticed indications when trainees needed help	13.6	72.7	13.6		
9. The objectives for the lecturer were stated clearly at the beginning of the lecture.	13.6	63.6	18.2	4.5	
10. The lecturer conveyed the topic in depth	22.7	0.5	18.2	9.0	
11. The Q&A and discussion was adequate to enhance my understanding	22.7	54.5	13.6	9.0	
12. I will be able apply the knowledge learned in my work/practice	18.2	50.0	22.7	9.0	
13. I will recommend this lecture to others	27.2	54.5	13.6	4.5	

According to our survey results, 86.2% of participants strongly agree/agree that the lecture was relevant to them. Moreover, 81.7% of participants strongly agree/agree that the lecture was helpful to strengthen the institutional capacity for their organization.

Additionally, participants mostly agree (90.8%) that they were satisfied that the lecturer was sound in knowledge and speech. Moreover, 77.2% of participants agree that the lecturer's objectives were stated clearly at the beginning of the lecture.

Most participants (50% - agree, 18.2% - strongly agree) will be able to apply the knowledge learned in their work/practice. Furthermore, most participants (27.2% - agree, 54.5% - strongly agree) will recommend this lecture to others.

Session 06: R&D Commercialization.**Organizer: Prof. Hyun Woo Park**

Total number of participants who submitted evaluation sheets: 22

[Table 4-6] Summary of results of evaluation questionnaire for session 6

Assessed criteria	Percentage response				
	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The topic covered in the lecture was relevant to me.	22.7	68.2	9.1		
2. The content was well organized and easy to follow.	18.2	68.2	13.6		
3. The lecture was helpful for understanding the field.	27.3	59.1	13.6		
4. The lecture would be helpful to strengthen the institutional capacity for my organization.	13.6	72.7	13.6		
5. The time allotted for the lecture was sufficient.	27.3	54.5	18.2		
6. The pace of the lecture was good.	13.6	68.2	13.6	4.5	
7. The lecturer was sound in knowledge and Speech.	45.4	45.4	9.1		
8. The lecturer noticed indications when trainees needed help.	18.2	77.3	4.5		
9. The objectives for the lecturer were stated clearly at the beginning of the lecture.	22.7	59.1	18.2		
10. The lecturer conveyed the topic in depth.	31.8	45.4	18.2	4.5	
11. The Q&A and discussion was adequate to enhance my understanding.	13.6	68.1	13.6	4.5	
12. I will be able apply the knowledge learned in my work/practice.	9.0	59.0	32.0		
13. I will recommend this lecture to others.	31.8	54.5	13.6		

According to our survey results, 90.9% of participants strongly agree/agree that the lecture was relevant to them. Moreover, 86.3% of participants strongly agree/agree that the lecture was helpful to strength the institutional capacity for their organization.

Additionally, participants mostly agree (90.9%) that they were satisfied that the lecturer was sound in knowledge and speech. Moreover, 81.8% of participants agree that the lecturer's objectives were stated clearly at the beginning of the lecture.

Most of the participants (59% - agree, 9% - strongly agree) will be able to apply the knowledge learned in their work/practice. Futhermore, most participants (54.5% - agree, 31.8% - strongly agree) will recommend this lecture to others.

EVALUATION SURVEY

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Name	KRC Consultant	Nationality	Sri Lanka																																																																																																																																																																																																																																			
Position	Principal Analyst Scientist	Department	Research and Development																																																																																																																																																																																																																																			
Organization	Department of Agriculture	Working duration	25 years																																																																																																																																																																																																																																			
Session 2	National Research and Development Program : Management and Evaluation	Lecturer					Hyun Yim																																																																																																																																																																																																																															
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree																																																																																																																																																																																																																											
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	12. I will be able to apply the knowledge learned in my work/practice.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>																																																																																																																																																																																																																																

Session 3 **Session 4**

Daily Evaluation Questionnaire
for Participants of Workshop on Capacity Building in STI Policy
Formulation and R&D Commercialization
Date: May 31st, 2018

Name	Dr. M.S. Nijamdeen	Nationality	Sri Lanka
Position	Deputy Director	Department	ARRSC/FCARD
Organization	DOA	Working duration	22 Years

Instructions: This questionnaire is designed to evaluate the lecture. The evaluation of lecture is meant to improve the quality of our training program. Please indicate your level of agreement with the items listed below by checking the appropriate box (Q1-13) and provide any comments for Q14-15. Many thanks for your support!

Session 3	Critical Factors of Korea's Economic Success	Lecturer					Young-Rak Choi				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1. The topics covered in the lecture was relevant to me.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	2. The content was well-organized and easy to follow.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	3. The lecture was helpful for understanding of the field.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	4. The lecture would be helpful to strengthen the institutional capacity of my organization.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	5. The time allotted for the lecture was sufficient.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	6. The pace of the lecture was good.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	7. The lecturer was sound in knowledge and speech.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	8. The lecturer noticed indications when trainees needed help.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	9. The objectives for the lecture were stated clearly at the beginning of the lecture.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	10. The lecturer conveyed in the topic in depth.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	11. Q&A and discussion was adequate to enhance my understanding.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	12. I will be able to apply the knowledge learned in my work/practice.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

Daily Evaluation Questionnaire
for Participants of Workshop on Capacity Building in STI Policy
Formulation and R&D Commercialization
Date: May 31st, 2018

Name	Sureka Jayasinghe	Nationality	Sri Lanka
Position	Research Scientist	Department	Chemical Microbiological Lab
Organization	ITP	Working duration	08 years

Instructions: This questionnaire is designed to evaluate the lecture. The evaluation of lecture is meant to improve the quality of our training program. Please indicate your level of agreement with the items listed below by checking the appropriate box (Q1-13) and provide any comments for Q14-15. Many thanks for your support!

Session 4	Framework of Korea's Science and Technology Innovation Policy	Lecturer					Young-Rak Choi				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1. The topics covered in the lecture was relevant to me.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	2. The content was well-organized and easy to follow.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	3. The lecture was helpful for understanding of the field.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	4. The lecture would be helpful to strengthen the institutional capacity of my organization.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	5. The time allotted for the lecture was sufficient.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	6. The pace of the lecture was good.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	7. The lecturer was sound in knowledge and speech.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	8. The lecturer noticed indications when trainees needed help.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	9. The objectives for the lecture were stated clearly at the beginning of the lecture.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	10. The lecturer conveyed in the topic in depth.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	11. Q&A and discussion was adequate to enhance my understanding.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	12. I will be able to apply the knowledge learned in my work/practice.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

Session 5 **Session 6**

Daily Evaluation Questionnaire
for Participants of Workshop on Capacity Building in STI Policy
Formulation and R&D Commercialization
Date: June 4th, 2018

Name	Sujitha Arora	Nationality	SRI LANKAN
Position	Research Scientist	Department	ITP / CMC
Organization	ITP	Working duration	21 Years

Instructions: This questionnaire is designed to evaluate the lecture. The evaluation of lecture is meant to improve the quality of our training program. Please indicate your level of agreement with the items listed below by checking the appropriate box (Q1-13) and provide any comments for Q14-15. Many thanks for your support!

Session 5	R&D Commercialization : Licensing	Lecturer					Hyun Woo Park				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1. The topics covered in the lecture was relevant to me.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	2. The content was well-organized and easy to follow.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	3. The lecture was helpful for understanding of the field.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	4. The lecture would be helpful to strengthen the institutional capacity of my organization.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	5. The time allotted for the lecture was sufficient.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	6. The pace of the lecture was good.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	7. The lecturer was sound in knowledge and speech.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	8. The lecturer noticed indications when trainees needed help.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	9. The objectives for the lecture were stated clearly at the beginning of the lecture.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	10. The lecturer conveyed in the topic in depth.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	11. Q&A and discussion was adequate to enhance my understanding.	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	12. I will be able to apply the knowledge learned in my work/practice.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					

Daily Evaluation Questionnaire
for Participants of Workshop on Capacity Building in STI Policy
Formulation and R&D Commercialization
Date: June 4th, 2018

Name	Shani	Nationality	Sri Lanka
Position	SDO	Department	Food Safety
Organization	ITP	Working duration	21 yrs

Instructions: This questionnaire is designed to evaluate the lecture. The evaluation of lecture is meant to improve the quality of our training program. Please indicate your level of agreement with the items listed below by checking the appropriate box (Q1-13) and provide any comments for Q14-15. Many thanks for your support!

Session 6	R&D Commercialization : Spin-Offs	Lecturer					Hyun Woo Park				
		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
	1. The topics covered in the lecture was relevant to me.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	2. The content was well-organized and easy to follow.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	3. The lecture was helpful for understanding of the field.	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	4. The lecture would be helpful to strengthen the institutional capacity of my organization.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	5. The time allotted for the lecture was sufficient.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	6. The pace of the lecture was good.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	7. The lecturer was sound in knowledge and speech.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	8. The lecturer noticed indications when trainees needed help.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	9. The objectives for the lecture were stated clearly at the beginning of the lecture.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	10. The lecturer conveyed in the topic in depth.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					
	11. Q&A and discussion was adequate to enhance my understanding.	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>					



CHAPTER 5

Korea-Sri Lanka STI Cooperation Plan and Direction

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and R&D Commercialization in Sri Lanka -



Chapter 5. Korea-Sri Lanka STI Cooperation Plan and Direction

1. Current Status and Its Challenges

The implementation of three major recent policies, namely the National S&T Policy (2008), Science, Technology and Innovation Strategy for Sri Lanka (2011), and the National Research and Development Framework (2016) are not satisfactory and in turn the efforts made to develop such policies have been in vain.

What is more serious is that the much-needed outputs and outcomes expected through the implementation of those policies, which are designed for the different developmental needs of the country, suffered heavily due to non-implementation of such policies. What this situation indicates is the lack of implementable action plans that fit to or that change the practical situation (political, social and economic) in the country. Paying inadequate attention to economic gains in the formulation of action plans and the lack of a proper legal framework to make implementation compulsory are major drawbacks of the current system. Introducing incentive-based strategies is an alternative to avoid these current drawbacks in the system.

2. Issues for Effective Collaboration

Considering Sri Lanka's current status and its challenges, issues for effective collaboration and STEPI's role in STI development cooperation, NASTEC would highly appreciate the support of STEPI in 2019 as follows:

- 1) Expanding training and consulting services for the establishment of an innovation

ecosystem in Sri Lanka.

- 2) Conducting research on Sri Lanka's STI system and policy as well as cooperation strategies between Korea and Sri Lanka
- 3) Ensuring mutual responsibility for the collaborative project

3. Future Direction

Finding common impediments that naturally prevent the effective implementation of policies is the responsibility of the policy maker (or policy body). These common impediments may vary from country to country, society to society and from government to government in the same country. They may be lack of funds, lack of interest or commitment of the government, etc. Therefore, the factors that prevent the effective implementation of policies should be found using a suitable research method. One of the main tasks of this policy consultation is to carry out fact-finding research under the guidance of STEPI experts.

The second task of this project is to work out strategies to eliminate/minimize these impediments. It is in this stage that a comprehensive STI policy and a suitable legal framework should be formulated and introduced.

In addition to the legal framework as a strategy, an incentive or policy implementation, promotional strategies (such as benefit sharing) should also be identified in this exercise.

Finally, at the end of the proposed project a comprehensive STI policy with an implementable plan of action should be put in place for validation and adoption by policy makers and policy bodies. Ultimately, this can lead to the development of a S&T policy implementation road map.



CHAPTER 6

Conclusion and Recommendation

2018 Capacity Development Workshop

- Science Technology and Innovation (STI) Policy
Formulation and R&D Commercialization in Sri Lanka -



Chapter 6. Conclusion and Recommendation

1. Conclusion

As results of the training workshops on STI policy and R&D commercialization, government officials who are involved in these subject areas gained significant knowledge on the above subjects and the importance of implementation of sound STI policy in the country to enhance the contribution from the STI sector to national economic development was also highlighted. It was identified that the R&D commercialization sector in Sri Lanka is at a very infant stage of development, and hence requires comprehensive review and development along with the development of research development and an innovation eco system in the country. Furthermore, the following observations were made.

- 1) Major limitations/shortcomings in STI policy in Sri Lanka identified.
 - i. Lack of a coherent relationship between STI policy and national industrial development plans/policies
 - ii. Lack of identification of strategic scientific industries to be developed in the country
 - iii. Lack of a clear roadmap for STI development with resource allocation and timeframes
 - iv. Gap in policy planning and implementation
- 2) Identification of need for concrete roadmaps for industrial development, STI and R&D commercialization.
- 3) Identification of need for brainstorming discussions for upgrading/changing of legal frames of the country in order to facilitate the emergence of an R&D commercialization

ecosystem in the country.

- 4) Identification of importance of development of specific strategies in STI and R&D commercialization in Sri Lanka addressing local situations, resources and socio-economic conditions, along with a critical assessment of relevant regional developments.
- 5) Insufficient capacities/human resources in STI policy formulations and strategic developments for R&D commercialization.
- 6) Development of future collaboration plans for policy infrastructure development and capacity building in Sri Lanka with STEPI and IICC Korea.

2. Recommendation

Future programmes of Korean STEPI support/collaboration for the development of STI and R&D commercialization in Sri Lanka are recommended with special emphasis on the following areas:

- 1) Support in the development of national STI policy along with road maps and the identification of strategic scientific industries in national economic development.
- 2) Assistance in human resource development in STI policy formulations and strategy developments for R&D commercialization.
- 3) In line with developments in the area of R&D commercialization in Sri Lanka, the huge existing gap in research development and innovation sectors where the existing level is far below the required level for national level implementation in which a R&D commercialization programme should be filled. One recommendation is to explore possible support/assistance that IICC or the Korean government can provide in this regard.
- 4) Assistance in the development of national R&D evaluation and management guidelines.
- 5) Assistance/collaboration in the development of a technology evaluation/valuation

system for Sri Lanka

Sri Lanka has its own social, cultural and environmental dimensions that could be considered in national policy and the strategic plan development process. These salient features need to be critically reviewed and evaluated, along with the experience of other developed nations such as Korea. However, mere copies of past, foreign methodologies or strategies in this regard will not help to solve these problems but will lead to a worse situation.

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