



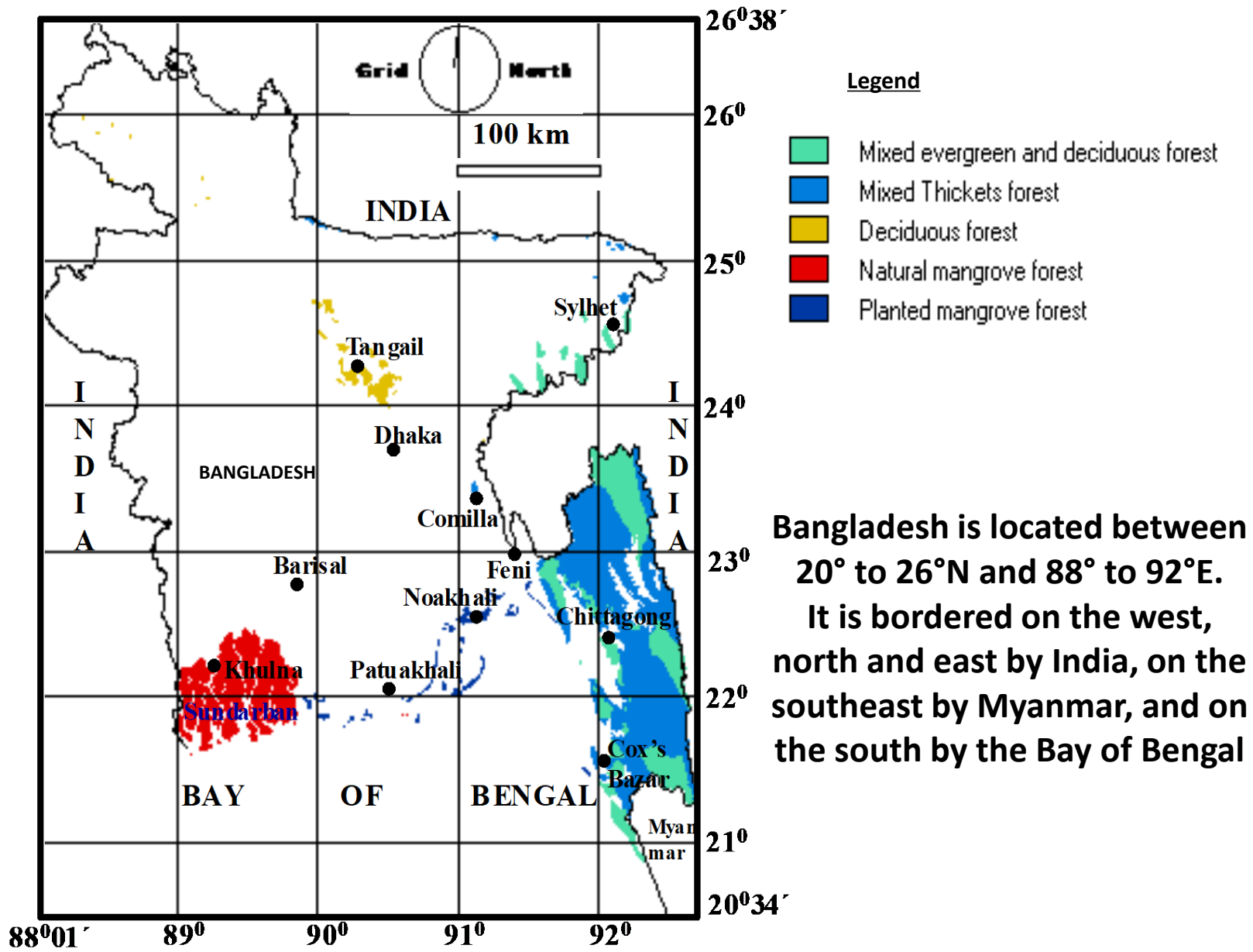
# Sketching Future Forestry Education for Bangladesh in Covid19 Pandemic and Post Pandemic Situation

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# Acknowledgements

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**Map 1.** Forest cover in Bangladesh (Al-Amin, 2012)



# Forestry and Environmental Science education in Bangladesh

Institute of Forestry and Environmental Sciences, University of Chittagong (IFESCU)

Students enrolled	Degree	Students			
		Male	Female	Foreign	Total
<b>Graduates</b>	<b>B.Sc. (Hons.)</b>	1021	225	15	<b>1261</b>
	<b>M.Sc.</b>	613	139	04	<b>756</b>
	<b>M.Phil</b>	05	01	-	<b>06</b>
	<b>Ph.D</b>	07	02	-	<b>09</b>
	<b>Subtotal</b>	<b>1647</b>	<b>367</b>	<b>19</b>	<b>2032</b>
<b>Current students (Annual intake B.Sc (Hons)- 40; M. Sc - 40</b>	<b>B.Sc. (Hons.)</b>	179	181	-	<b>360</b>
	<b>M.Sc.</b>	78	47	-	<b>125</b>
	<b>M.Phil/PhD</b>	10	03	-	<b>13</b>
	<b>Subtotal</b>	<b>267</b>	<b>231</b>	-	<b>498</b>
10/05/2022	<b>Total</b>	<b>1914</b>	<b>598</b>	<b>19</b>	<b>2530</b>

## Forestry education in Bangladesh: at SUST, KU and Sub professional level

Students enrolled	Degree	Graduate Students	Current annual intake
		Total	Total
Department of Forestry and Environmental Sciences at Sylhet Science and Technology University	B.Sc. (Hons.)	279	58
	M.Sc.	158	58
	M.Phil	-	-
	Ph.D	-	-
	Subtotal	437	116
Forestry and Wood Science discipline at Khulna University	B.Sc. (Hons.)		48
	M.Sc.		48
	M.Phil/PhD	-	2
	Subtotal	-	98
Sub professional level Diploma in Forestry	Diploma	535	50

❖ 566 **days** of closer of our educational institutions for **PANDEMIC COVID19** situation

❖ **NO CLASSROOM ACTIVITIES**

❖ **NO EXAMINATION**

❖ **ONLINE CLASSES** USING ZOOM, GOOGLE PLATFORM

Forestry education is passing a paradigm shift from **normal to new normal** situations with its colonial history to user friendly mode



incorporating concepts of collaborations and technology interventions



leads to examine current job markets, corporate mechanisms to cope **major challenges** of **climate change and resource sustainability**



**Leads new curriculum development!!**

**New Problem**



**New strategies**  
(Under Stress)



**GOVERNMENT**

**EDUCATION INSTITUTIONS**

**Government Perception**  
scientific study  
Policy alteration...

**New knowledge expedition**  
**Technology Intervention**



**People's Livelihood and Protection**  
GDP

**Educational Institutions with new curriculum**



**Societal Change to Achieve SDG 4**  
(Education for all: Yardstick to social equity)

**New Problem**



**COVID19 PANDEMIC**

(WHO & GOVERNMENT ARE MAIN HUBS FOR KNOWLEDGE and DECISION)



**GOVERNMENT**

**EDUCATION SECTOR**



- **LOOKING FOR VACCINE**
- **Insufficient information**
- **Policy- (LIFE) SAFETY FIRST**

- **TOTAL CLOSER**
- **Looking for new platform for communication**
- **New method of teaching**



- **People's Livelihood and Protection**
- **GDP**

**Educational Institutions  
With new ordinances and  
new curriculums**

- ✓ **Government subsidy/loan to students for having internet facilities**
- ✓ **Classes and exams from home**
- ✓ **Classroom Education ...Distant learning ...Online learning**

**System**



➤ **'Problem converts into opportunity'**

Need a bridge between forestry education of developed and developing economies

Lead to minimize the knowledge gaps and sharing technologies

➤ **The collaboration**

APFECM, a successful platform for collaboration set examples of sharing knowledge between stated nations

Working on generic forestry education equity in the world

➤ **Step forward to fulfill SDG 4 (quality education for all)**

Extends and ensures the job markets from national to global scale

IFESCU emphasized the outcomes APFECM meetings

- ✓ The necessity of **new structured courses** with an option **on-line and distant learning mechanism** to cope global needs in forestry (student friendly)

Nevertheless APFECM also stressed on

- ✓ **Accreditation of the degree program**  
and
- ✓ **Developing mechanisms for avoiding unfair means in research and scientific writings**

## **Methodology**

**This study was designed to uphold the conceptual approach to know about the steps needed to do in new normal and how this will be imparted to the curriculum.**

**A semi structured questionnaire was developed and send to the alumni of IFESCU, members of Institution of Foresters of Bangladesh (IFB), different stakeholders particularly main employers of the graduate and academicians of home and abroad (Focus group discussion).**

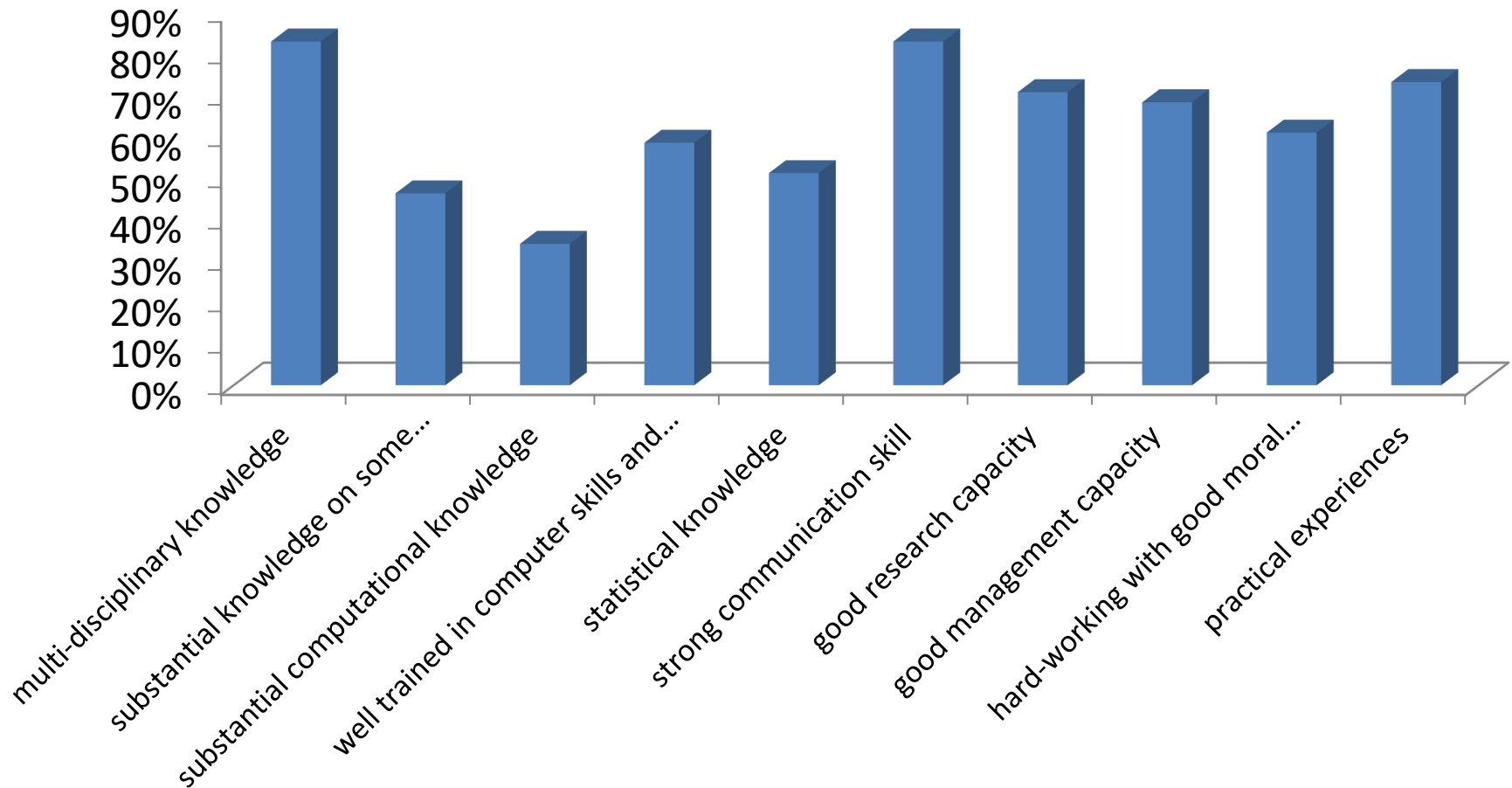
**However, purposively selected persons were interviewed for their valuable inputs through webinars (Key Informants Interview)**

**Four research questions** mainly asked in the study:

1. **“What are the basic qualities you expect from IFESCU graduates?”**
2. **“During the pandemic situation the education system has been greatly disrupted. However, many institutions started to cope with the situation in different ways. Should we consider these ways for unwanted situations in future for our curriculum development?”**
3. **If the answer of question no. 2 is ‘Yes’, then the question came to how?**
4. **Then the last basic query was “What are the courses (titles) will be in graduate programs of Forestry and Environmental science, you want to see must?”**

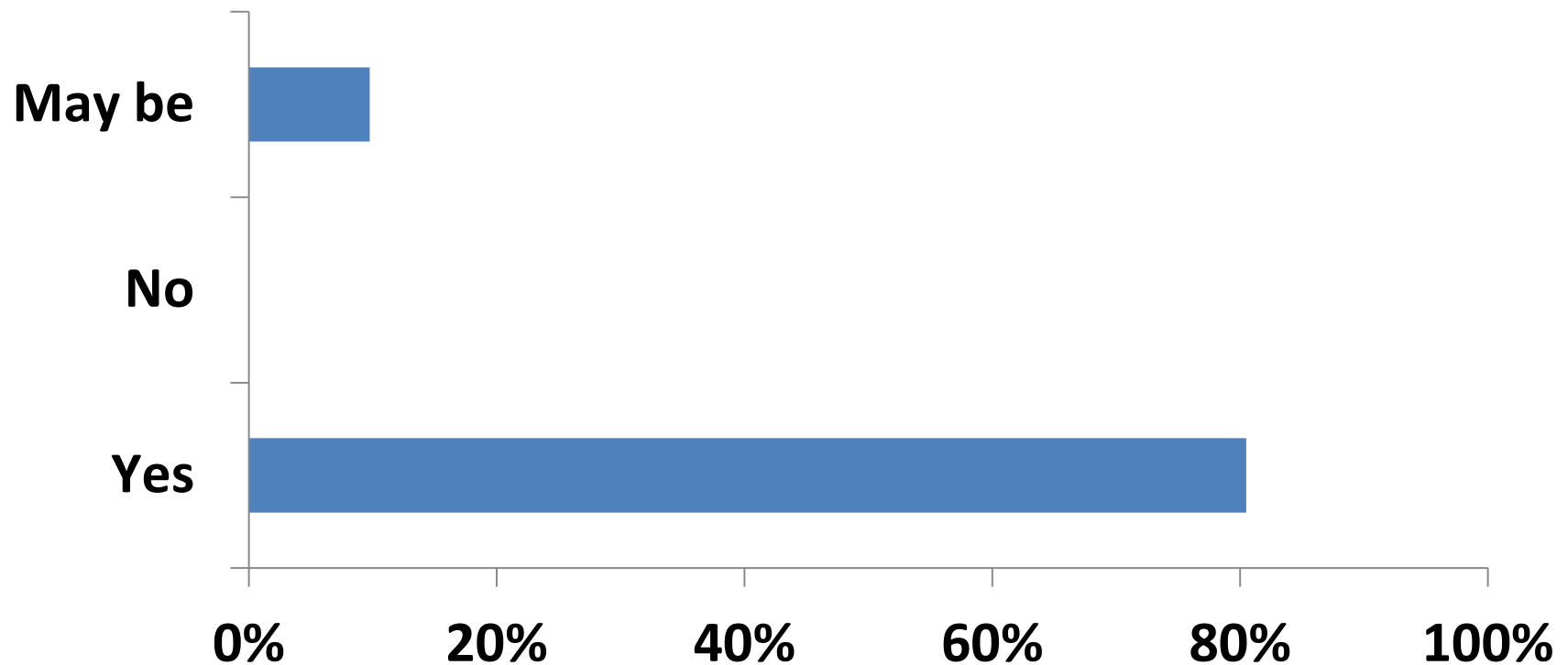
## Results:

“What are the basic qualities you expect from IFESCU graduates?”



Second question:

**“During the present pandemic situation the education system has been greatly disrupted. However, many institutions started to cope with the situation in different ways. Should we consider these kinds ways for unwanted situations in future for our curriculum development?”**

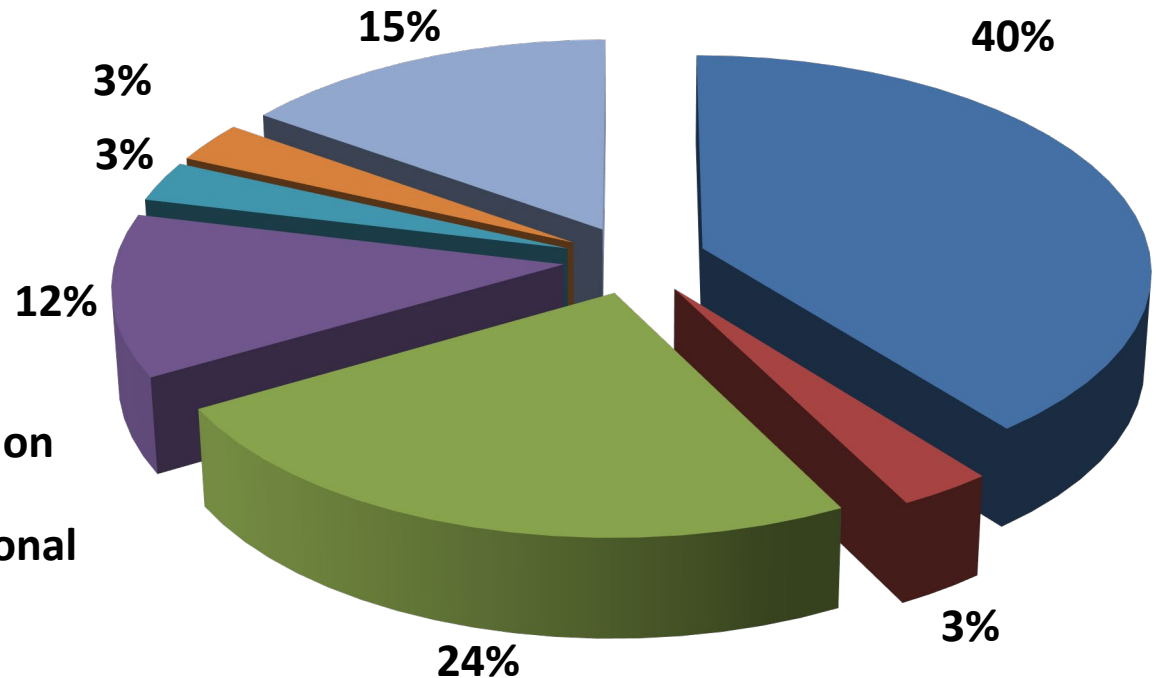




Third question:

**If the answer of question no. 2 is Yes, then the question came to “how”?**

- online platform for theory class
- online platform for practical class
- online assessment
- more emphasis on software base application
- field activity as an optional requirement
- minimize the class size



## Fourth question:

**“What are the courses (titles) will be in graduate programs of Forestry?”**

### **Alumni:**

**General courses:** Corporate Communication and Etiquette, Development Studies, Organizational Behavior and Leadership Development, Human Resource Management, International Communication, Sustainability Science, and

**Specific course on:** Carbon Inventory, Conservation Biology, Green Banking, Renewable Energy Management, Urban Planning, Bioethics, Forest Toxicology, Forest Biotechnology, Forest Bioinformatics, Forest Molecular Genetics, Global Forestry, Forest Health and Protection.

### **Employers:**

Water Resources Planning and Management, Communication, Advanced Writing Skills .

### **International experts:**

Climate Change, Sustainable forest Management, Forest Soil, Genetics and Biotechnology, Forest Hydrology, Global Forestry, Urban Forestry, Communication and policy dialogue.

## **In this pandemic, new online approach also come forward**

**Popularity of massive open online courses (MOOCs) which have advantages are recognized such as being open access, free to the learners, and providing a myriad of courses to choose from.**

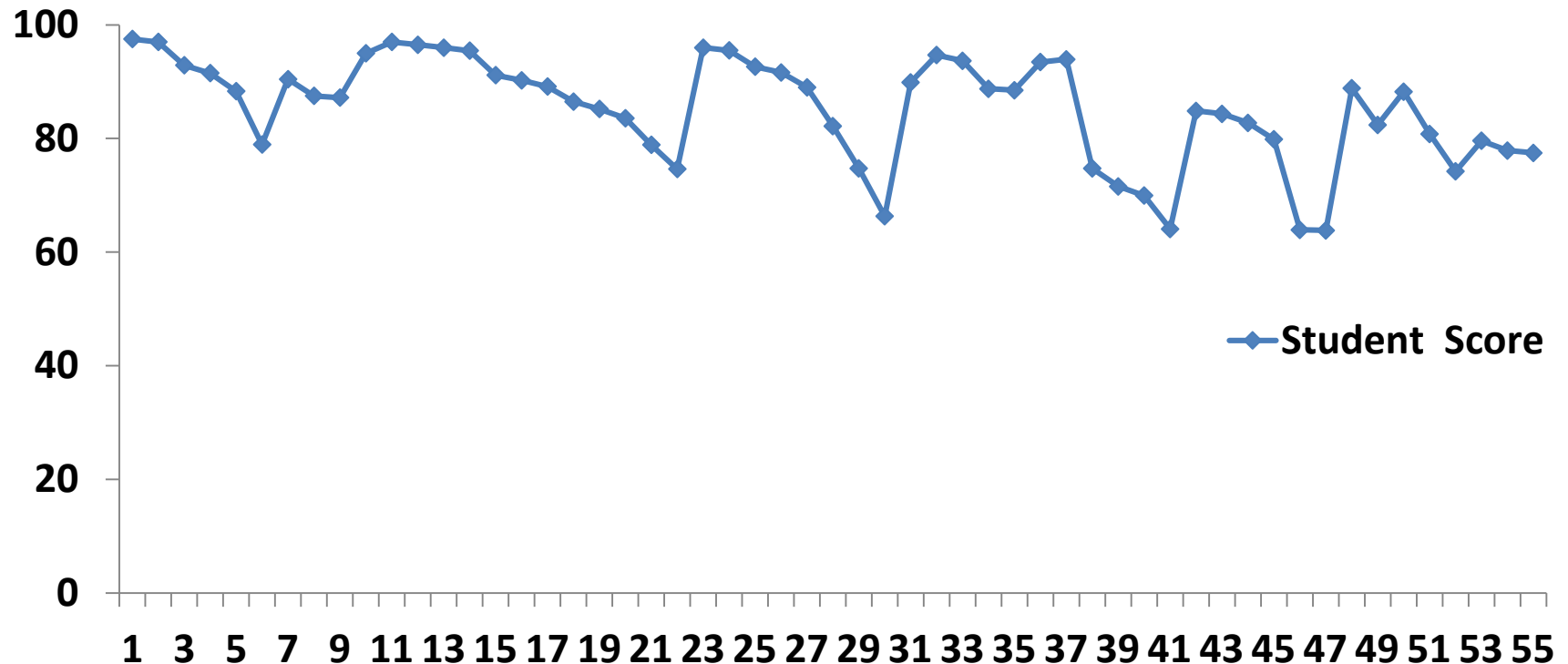
**Brought pressure on field training and suggested exclude some of those in pursuit of forestry / Environmental science as a career but with lesser academic credentials.**

**Learning management system to better deliver the courses to students. Courses can be put online (internally), with assignments, marks and interaction better listed.**

**Emergence of flipped classroom ( a good example is Google classroom) was also recognized which has now been transformed into a place for discussion, instead of the traditional transfer of knowledge from teachers to students.**

## Study on Students Perception on Participating MOOC

55 students participated in online courses titled “sustainable forest management in a changing world”; “Geomatics in Forestry: Data collection and management;” and “Introduction to Urban Forestry in the Asia Pacific region” offered by APFECM and UBC.



## Challenges identified

**Academic misconduct** has been rising due to the easier access to online resources and varies between cultures; this is a problem that the whole academic community needs to address.

Another challenge is that the **requirements for knowledge of skills** that are emphasized by **accreditation processes** may hinder some aspects of the development of well-rounded students.

### In essence

Forestry education now has mainly been shaped by the weak status of the traditional forestry industry, emerging global issues related to forestry development, and the changing socioeconomic landscape in many economies.

Many universities are undergoing a paradigm shift in curriculum development and also seeking collaborative programs between universities.

# Forestry College Deans Meeting in Asia-Pacific Region

— Forestry Education towards Sustainable Forest Management





**THANKS A LOT  
FOR YOUR KIND  
ATTENTION**

