

Analytical Report for the development of African Tailored Master-level MOOCs in collaboration with Mohammed VI Polytechnic University

Number of valid survey respondents: 50

Completion rate: 100%

Number of institutions: 38

Number of countries: 18

1. Most relevant core courses offered at master level in Agriculture domain

The survey results showed that the most relevant core course offered at master level in Agriculture domain is Agribusiness with 4.4% of the respondents suggesting it, this represented 8 in 182 course suggestions by the respondents as shown in Figure 1. The next most relevant courses suggested by the respondent were Agricultural Economics and Rural Development, crop science and Food Science and Nutrition all at 3.9% (7 out of the 182 course suggestions). In total there were 109 most relevant core courses suggested but in Figure 1, we show the results for 30 most relevant core courses, for a detailed list of all the 110 suggested core courses, see annex 1.

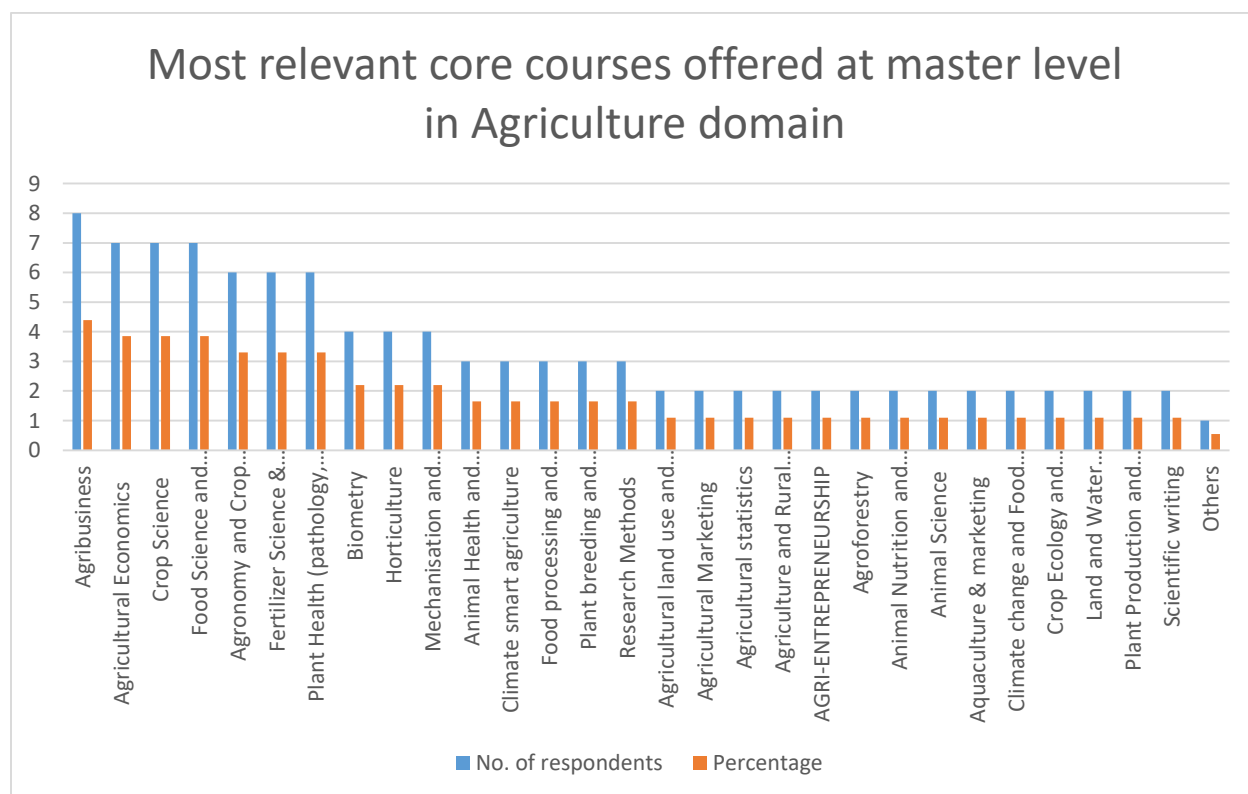


Fig. 1: Most relevant core courses offered at master level in Agriculture domain

2. Master level courses in Agriculture domain with greater potential to transform African Agricultural industry

The master level course in Agribusiness was suggested as a course with greatest potential to transform African Agricultural industry with 7.4% of the respondents suggesting it, this represented 10 in 135 course suggestions by the respondents as shown in Figure 2. These was then followed by Agronomy, Fertilizers science & technology and Climate Smart Agriculture at 5.2%, 4.4% and 3.7% as the next courses respectively with the most potential to transform African Agricultural industry. In total there were 82 courses with greater potential to transform African Agricultural industry suggested but in Figure 2, we show the results for 21 highest ranked courses, for a detailed list of all the 82 suggested courses, see annex 2.

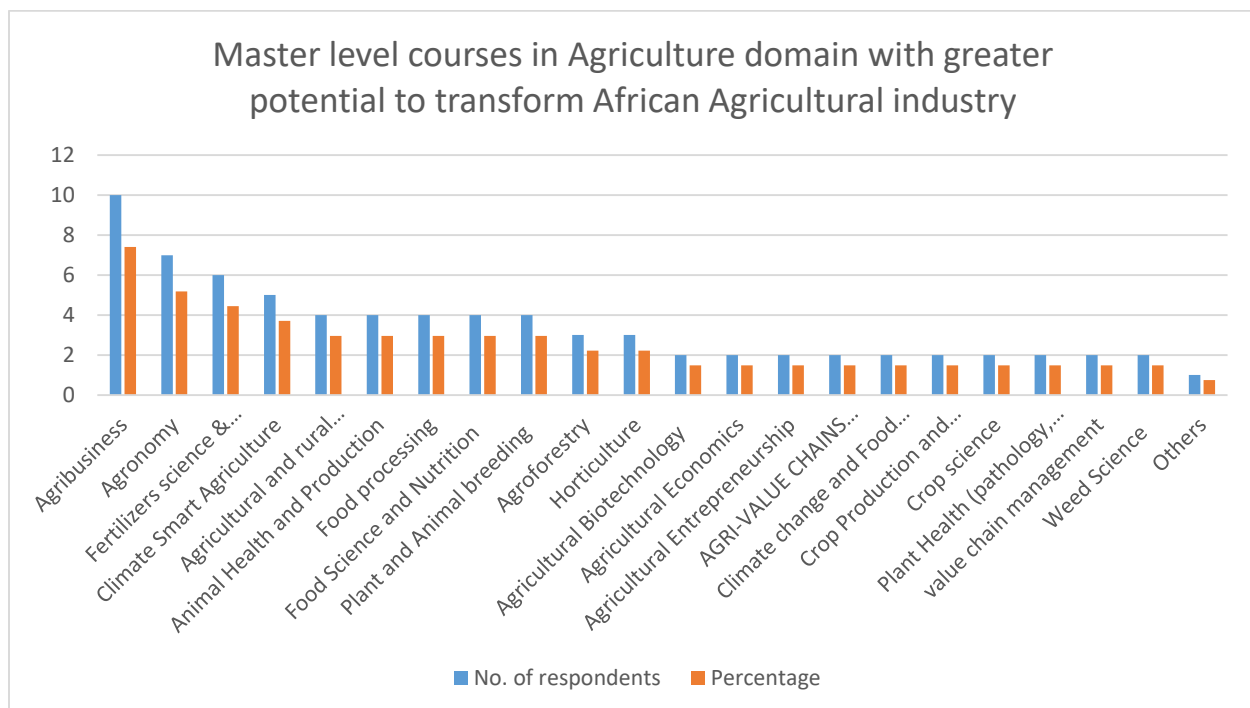


Fig. 2: Courses in Agriculture domain with greater potential to transform African Agricultural industry

3. Master level courses in Agriculture domain considered as technologically innovative and interesting to be developed into MOOCs

The master level course in Agribusiness was suggested as technologically innovative and interesting to be developed into MOOCs with 6.2% of the respondents suggesting it, this represented 6 in 97 course suggestions by the respondents as shown in Figure 3. These was then followed by Agronomy and food processing each at 4.1% as the next most technologically innovative and interesting courses that can be developed into MOOCs. In total there were 68 courses that were suggested as technologically innovative

and interesting to be developed into MOOCs but in Figure 3, we show the results for 16 highest ranked courses, for a detailed list of all the 68 suggested courses, see annex 3.

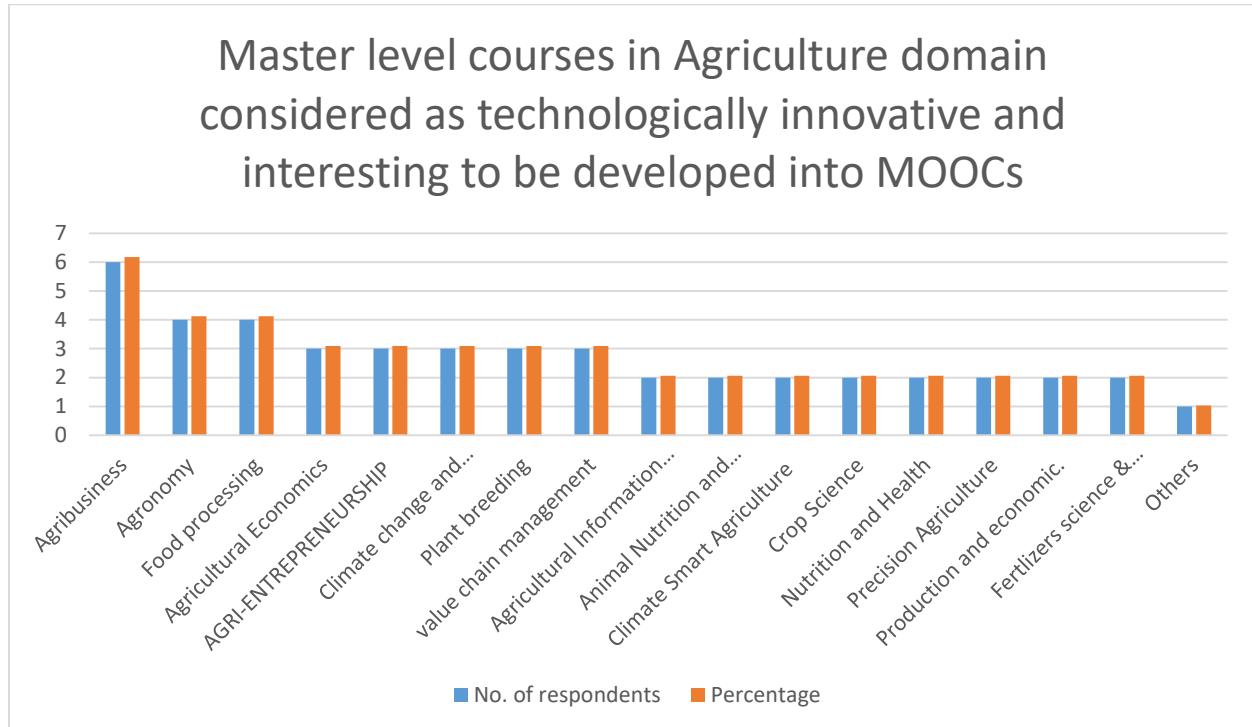


Fig. 3: Technologically innovative courses and interesting to be developed into MOOCs

4. a) Interest to take part in the initiative

Ninety-six percent (96%) of the respondents expressed interest in participating in the initiative as compared to four percent (4%) who were not interested as shown in the pie chart in Figure 4.

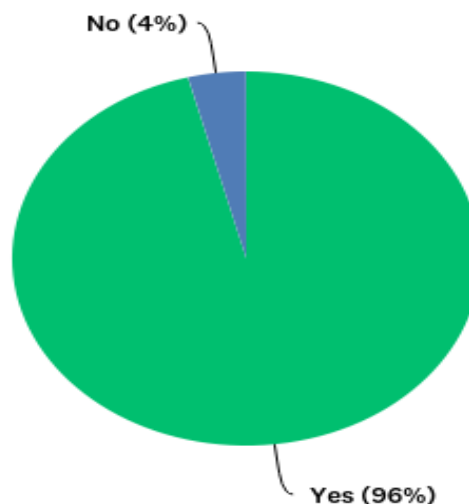


Fig 4: Interest to take part in the initiative

4. b) Top management assurance of commitment to take part in the initiative

In regards to the commitment by each institution's top management, 87.5% of the respondents were assured of commitment from their respective institutions' top management as compared to 12.5% who were not assured as shown in the pie chart in Figure 5.

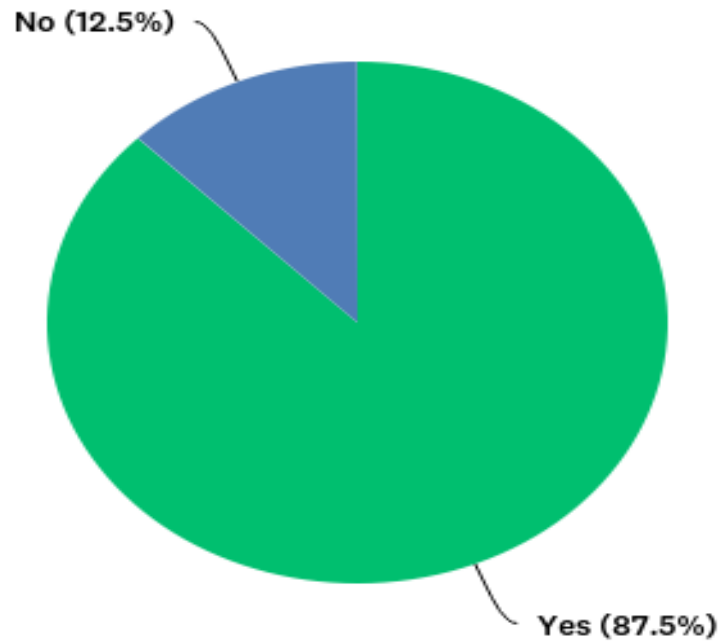


Fig 5: Assured of commitment from top management to take part in the initiative

ANNEX

Annex 1: Most relevant core courses offered at master level in Agriculture domain as suggested by the respondents

No.#	Course	Number of respondents out of 50	Percentage
1	Agribusiness	8	4.40
2	Agricultural Economics and Rural Development	7	3.85
3	Crop Science	7	3.85
4	Food Science and Nutrition	7	3.85
5	Agronomy and Crop Husbandry	6	3.30
6	Fertilizer science & technology	6	3.30
7	Plant Health (pathology, entomology, weed management)	6	3.30
8	Biometry	4	2.20
9	Horticulture	4	2.20
10	Mechanisation and Postharvest technologies	4	2.20
11	Animal Health and Production	3	1.65
12	Climate smart agriculture	3	1.65
13	Food processing and value addition	3	1.65
14	Plant breeding and biotechnology	3	1.65
15	Research Methods	3	1.65
16	Agricultural land use and conservation	2	1.10
17	Agricultural Marketing	2	1.10
18	Agricultural statistics	2	1.10
19	Agriculture and Rural Innovations (MARI)	2	1.10
20	AGRI-ENTREPRENEURSHIP	2	1.10
21	Agroforestry	2	1.10
22	Animal Nutrition and Feeding	2	1.10
23	Animal Science	2	1.10
24	Aquaculture & marketing	2	1.10
25	Climate change and Food Security	2	1.10
26	Crop Ecology and Agroclimatology	2	1.10
27	Land and Water Resources Management	2	1.10
28	Plant Production and Protection	2	1.10
29	Scientific writing	2	1.10
30	Agricultural Technology	1	0.55
31	Agro-meteorology and Disaster Risk Management	1	0.55
32	Animal Production and Protection	1	0.55

33	Advanced Production Economics	1	0.55
34	Agricultural Biotechnology	1	0.55
35	Agricultural education	1	0.55
36	Agricultural extension	1	0.55
37	Agricultural Farm Practices	1	0.55
38	Agricultural Information and Communication Management	1	0.55
39	Agricultural Livelihood and Farm Production (Not yet offered)	1	0.55
40	Agricultural Production	1	0.55
41	Agricultural Value-Chain Management	1	0.55
42	Agricultural waste management	1	0.55
43	Agriculture and Climate Change	1	0.55
44	AGRI-INNOVATIONS AND SYSTEMS DEVELOPMENT	1	0.55
45	animal breeding	1	0.55
46	Apiculture and Sericulture	1	0.55
47	Biodiversity Management Conservation	1	0.55
48	Bioinformatics	1	0.55
49	Biological Control	1	0.55
50	Biostatistic	1	0.55
51	cereals industry	1	0.55
52	Crop Processing and Value Addition	1	0.55
53	Crop Production and Management	1	0.55
54	Crop Protection	1	0.55
55	Data science and Analytics	1	0.55
56	Design and Analysis of Experiment	1	0.55
57	Drones in Agriculture	1	0.55
58	Econometrics	1	0.55
59	Environmental Conservation	1	0.55
60	Environmental Economic	1	0.55
61	Environmental Science	1	0.55
62	epidemiology	1	0.55
63	Ethics Geostatistics	1	0.55
64	Fish Breeding and Hatchery management	1	0.55
65	Forensics	1	0.55
66	Forest Management	1	0.55
67	Gestion des entreprises agricoles	1	0.55
68	Global warming	1	0.55
69	Green Economy in Africa	1	0.55
70	Integrated Agriculture-Aquaculture Systems	1	0.55

71	Integrated land management	1	0.55
72	Integrated natural resources management	1	0.55
73	Integrated Pest Management	1	0.55
74	Integrated Watershed Management	1	0.55
75	Irrigation and drainage design	1	0.55
76	Land Degradation and Productivity Management	1	0.55
77	Land Resource Planning and Management	1	0.55
78	Landscape Design	1	0.55
79	Livestock and Wildlife production and management	1	0.55
80	meat technology	1	0.55
81	Microbiology	1	0.55
82	microbiology	1	0.55
83	Microeconomic Theory	1	0.55
84	Milk technologie	1	0.55
85	Modern breeding technologies	1	0.55
86	Molecular genetic	1	0.55
87	Molecular plant science	1	0.55
88	Natural Resources Management	1	0.55
89	pharmacology	1	0.55
90	Phytotechnie	1	0.55
91	plant breeding	1	0.55
92	Plant Nutrition	1	0.55
93	Plant Physiology	1	0.55
94	Plant Protection	1	0.55
95	production and utilisation of medicinal plants of Africa	1	0.55
96	public health	1	0.55
97	Remote sensing and GIS	1	0.55
98	Silviculture	1	0.55
99	Soil and Plant Nutrition	1	0.55
100	Soil Genesis and Classification	1	0.55
101	Soil physics	1	0.55
102	Statistical Method	1	0.55
103	Sustainable rural development	1	0.55
104	Toxicokinetics	1	0.55
105	Tropical agriculture	1	0.55
106	Urban Ecosystem services	1	0.55
107	Urban forestry	1	0.55
108	urban green spaces	1	0.55
109	Water and Soil Conservation	1	0.55

Annex 2: Master level courses in Agriculture domain with greater potential to transform African Agricultural industry

No.	Course	Number of respondents out of 50	Percentage
1	Agribusiness	10	7.4
2	Agronomy	7	5.2
3	Fertilizers science & technology	6	4.4
4	Climate Smart Agriculture	5	3.7
5	Agricultural and rural innovations	4	3.0
6	Animal Health and Production	4	3.0
7	Food processing	4	3.0
8	Food Science and Nutrition	4	3.0
9	Plant and Animal breeding	4	3.0
10	Agroforestry	3	2.2
11	Horticulture	3	2.2
12	Agricultural Biotechnology	2	1.5
13	Agricultural Economics	2	1.5
14	Agricultural Entrepreneurship	2	1.5
15	AGRI-VALUE CHAINS DEVELOPMENT	2	1.5
16	Climate change and Food Security	2	1.5
17	Crop Production and Management	2	1.5
18	Crop science	2	1.5
19	Plant Health (pathology, entomology, weed management)	2	1.5
20	value chain management	2	1.5
21	Weed Science	2	1.5
22	Ethnobotany	1	0.7
23	Advanced Production Economics	1	0.7
24	Agricultural education	1	0.7
25	Agricultural extension	1	0.7
26	Agricultural Information and Communication Management	1	0.7
27	Agricultural Livelihood and Farm Production	1	0.7
28	Agricultural Statistics	1	0.7
29	Agricultural Value-Chain Management	1	0.7

30	Agricultural Water Management	1	0.7
31	Animal nutrition	1	0.7
32	Animal Science	1	0.7
33	Apiculture and Sericulture	1	0.7
34	Aquaculture & marketing	1	0.7
35	Biological Control	1	0.7
36	biomedicines	1	0.7
37	Biometry	1	0.7
38	Biosystems Engineering	1	0.7
39	Conservation agriculture	1	0.7
40	crop husbandry program	1	0.7
41	Crop Pathology	1	0.7
42	Crop Physiology	1	0.7
43	Crop Process equipment Design	1	0.7
44	Crop Processing and value addition	1	0.7
45	Crop Protection	1	0.7
46	dairy farming and animal health	1	0.7
47	Data science and Analytics	1	0.7
48	dryland farming	1	0.7
49	Econometrics	1	0.7
50	Economics of Climate change	1	0.7
51	Entomology	1	0.7
52	Entrepreneurship	1	0.7
53	Fish Breeding and Hatchery management	1	0.7
54	genetic diversity	1	0.7
55	GIS and Remote Sensing	1	0.7
56	greenhouses production and management	1	0.7
57	Innovative grains storing systems	1	0.7
58	Integrated Agriculture-Aquaculture Systems	1	0.7
59	Integrated land management	1	0.7
60	Integrated Pest Management	1	0.7
61	integrated watershed management	1	0.7
62	Land and Water Resources Management	1	0.7
63	Land Resources Planning and Management	1	0.7
64	nutrition sciences	1	0.7

65	Mechanisation and Postharvest technologies	1	0.7
66	molecular genetic	1	0.7
67	Natural Resources Management	1	0.7
68	Non-waste agrosystem	1	0.7
69	Plant breeding Methods	1	0.7
70	Plant nutrition	1	0.7
71	Plant Production and Protection	1	0.7
72	Precision Agriculture	1	0.7
73	Promotion of traditional food processing	1	0.7
74	public health	1	0.7
75	Quantitative Genetics	1	0.7
76	Research Methods	1	0.7
77	RS and GIS	1	0.7
78	Smart farming (Greenhouse technology)	1	0.7
79	Soil and Plant Nutrition	1	0.7
80	Statistics/Biometry	1	0.7
81	Systems Thinking	1	0.7
82	Technologie des produits agricoles	1	0.7
		135	100.0

Annex 3: Master level courses in Agriculture domain considered as technologically innovative and interesting to be developed into MOOCs

No.	Course	Number of respondents out of 50	Percentage
1	Agribusiness	6	6.2
2	Agronomy	4	4.1
3	Food processing	4	4.1
4	Agricultural Economics	3	3.1
5	AGRI-ENTREPRENEURSHIP	3	3.1
6	Climate change and Food Security	3	3.1
7	Plant breeding	3	3.1
8	value chain management	3	3.1
9	Agricultural Information and Communication Management	2	2.1
10	Animal Nutrition and Feeding	2	2.1
11	Climate Smart Agriculture	2	2.1
12	Crop Science	2	2.1

13	Nutrition and Health	2	2.1
14	Precision Agriculture	2	2.1
15	Production and economic.	2	2.1
16	Fertilizers science & technology	2	2.1
17	Imagery analysis of space data	1	1.0
18	Agricultural Entrepreneurship	1	1.0
19	Agricultural Livelihood and Farm Production	1	1.0
20	Agricultural Marketing Technology	1	1.0
21	Agricultural protection	1	1.0
22	Agricultural Value-Chain Management	1	1.0
23	Agricultural Water Management	1	1.0
24	AGRI-VALUE CHAINS DEVELOPMENT	1	1.0
25	Agroforestry	1	1.0
26	Animal Science	1	1.0
27	Apiculture and Sericulture	1	1.0
28	Aquaponics-Agriculture Integration	1	1.0
29	Artificial intelligence application to Agriculture	1	1.0
30	Big Data	1	1.0
31	Biological Control	1	1.0
32	commercial food processing and value addition	1	1.0
33	Conservation agriculture	1	1.0
34	Crop Pathology	1	1.0
35	Crop Physiology	1	1.0
36	Crop Processing and Value Addition	1	1.0
37	Data science and Analytics	1	1.0
38	Drones in Agriculture	1	1.0
39	Dryland farming	1	1.0
40	ethnomedicines and green pharmacy for humans and ethnoveterinary	1	1.0
41	Etude de marché	1	1.0
42	Extension and Rural Innovation	1	1.0
43	food sciences and nutrition	1	1.0
44	Genetic diversity	1	1.0
45	greenhouse management	1	1.0
46	Horticulture	1	1.0
47	Integrated Agriculture-Aquaculture Systems	1	1.0
48	Integrated Pest Management	1	1.0
49	integrated watershed management	1	1.0
50	Introduction to GIS and Remote Sensing	1	1.0
51	IOT and drones	1	1.0

52	Land Resources Planning and Management	1	1.0
53	Legume tress on farm	1	1.0
54	Mechanisation and Postharvest technologies	1	1.0
55	microbiology	1	1.0
56	Natural Resources Management	1	1.0
57	Open Data	1	1.0
58	Pest management	1	1.0
59	pharmacology	1	1.0
60	Plant Pathology	1	1.0
61	Research methods	1	1.0
62	Rotational agriculture	1	1.0
63	RS and GIS in natural resources management	1	1.0
64	Rural innovation courses	1	1.0
65	Sustainable agriculture for development	1	1.0
66	Systems Thinking	1	1.0
67	Urban environmental	1	1.0
68	Weed Science	1	1.0
		97	100.0