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Agricultural Higher Education in the 21st Century. Student view: attractiveness and employability

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Abstract. By the year 2050, an enormous increase in food production is needed to sustain global food security. Because the students of today will be the professionals of 2050, it is extremely important that a sufficient number of students is being educated to realize this increasing food demand. However, the problem is that currently too few students are interested in studying the field of agriculture and related sciences. In this paper, the reasons for this low interest are analysed on the basis of answers given in interviews with agriculture related students from all over the world. It seems that the current image of agriculture in developed regions is one of the obstacles in attracting enough students. Improving society's awareness on the role of agriculture in our daily lives can greatly improve the image of the sector in general and therefore the amount of students choosing this particular field of study. Other possible reasons for low interest in the study like the quality of the study, the extra-curricular opportunities and the career perspective after graduation were analysed as well. They were found to be positive compared to other careers. Something that most students that are at the point of choosing their study have no idea of. Improving the marketing of these positive aspects is a way to improve the number of students applying for a study in the field of agriculture or any related science.

Keywords. Attractiveness – Employability – Agricultural Sciences – Student view.

L'enseignement supérieur agricole au XXI^e siècle. Le point de vue des étudiants : attractivité et employabilité

Résumé. À l'horizon 2050, une augmentation énorme de la production d'aliments sera nécessaire pour assurer la sécurité alimentaire mondiale. Vu que les étudiants d'aujourd'hui seront les professionnels de demain, il est d'une extrême importance d'en former un nombre suffisant dans ce domaine afin de palier au mieux à la demande alimentaire mondiale. Le problème est qu'actuellement le nombre d'étudiants intéressés par des études dans le domaine agricole et des sciences connexes est trop petit. Dans cet article les raisons à ce manque d'intérêt sont analysées en se basant sur des réponses données lors d'entretiens avec des étudiants des filières agricoles de par le monde. Il semble que l'image qu'a actuellement agriculture dans les régions développées du globe soit un réel frein à l'adoption de ces études. Promouvoir l'agriculture au sens large et sensibiliser la société au rôle qu'a l'agriculture dans nos vies quotidiennes pourrait améliorer fortement l'image du secteur et permettrait par conséquent d'augmenter le nombre d'étudiants choisissant des études dans ce domaine. D'autres raisons probables à ce manque d'intérêt ont également été analysées, telles que la qualité de l'enseignement, les opportunités extra-universitaires et les perspectives de carrière une fois les études achevées. Celles-ci se sont avérées bonnes comparées à celles d'autres filières, mais c'est quelque chose qui n'est pas perçu par la plupart des étudiants sur le point de choisir leurs études. Améliorer le marketing de ces aspects positifs serait une manière d'augmenter le nombre d'étudiants posant leur candidature pour une formation dans le domaine de l'agriculture ou de toute autre science connexe.

Mots-clés. Attractivité - Employabilité - Sciences de l'agriculture - Point de vue des étudiants.

I – Introduction

Mainly due to exponential population growth, world agricultural production has to increase by at least 60 per cent within the next 35 years (Alexandratos and Bruinsma, 2012). At the same time almost all arable land has already been taken into cultivation and vast expansion of agricultural area is no option. This means that one of the main ways to meet this increasing food demand must come from an increased yield per hectare. To establish this increase in productivity, it is essential that knowledge of agronomy is applied into the fields. Nowadays a lot of agricultural research is being done to find the best techniques to meet this increasing demand. However, the number of students interested in studying agriculture or any related science is lagging behind, which causes a hampering of the innovation and application of agricultural knowledge.

Today's students will be the professionals of 2050. They will be the agronomists, the scientists, the farmers, the politicians or anyone having a function in the agro-food chain who all have to deal with the skyrocketing food demand of that time. They will be the ones who will actually have to realize this rise in food supply; something they cannot accomplish if they are too few in number. Not educating enough agricultural students today will therefore have its severe consequences in the future.

To find out the reasons behind the (lack of) popularity of agricultural sciences, 19 under graduated university students of the field of agriculture or related sciences have been interviewed. These students are members of IAAS and come from 15 different countries, both from the developed and developing world (Table 1). Questions related to the popularity of their field of study, in particular about the image, the curricular and extra-curricular content (among other topics) were discussed with them electronically, in real life or on paper, after that these students had discussed the questions with their fellow students at their local university. For the questions and answers, see annex.

Table 1. Interviewed students

Country	University	Degree	No. students
Benin	University of Abomey-Calavi	Agricultural Engineering	1
Canada	Université Laval	Bachelor agronomy, business profile	1
Chile	Universidad Mayor - Santiago	Bachelor Agronomy	1
Croatia	University of Zagreb	Agronomy	2
Germany	Universität Bonn	Agronomy	1
Indonesia	Bogor Agricultural University	Agronomy	1
Italy	Universitá del Molise	Agronomy	1
Mexico	Tecnológico de Monterey, campus Querétaro	Agronomy	1
Spain	Universidad Politécnica de Madrid	Agronomy – Agricultural Engineering	4
Belgium	KU Leuven	Master Agro- & Ecosystems engineering	g 1
Uganda	Busitema University	Agronomy	1
Ukraine	National University of Life and Environmental Sciences of Ukraine	Animal Husbandry	1
Zimbabwe	Africa University	Agronomy	1
Nepal	Tribhuvan University	M.Sc in Agri-Economics and Agri-business Management	1
USA	Iowa State University	Global Resource Systems	1

II - Choice of study

The reason why too few students are interested in studying agriculture can be analysed on basis of the factors that determine the choice of study of a high school student. Several aspects play a role in this decision. First of all, a study needs to be interesting to the student. Next to that, the possibility of future jobs related to the study must provide a certain level of comfort, social status and job security. Also the attractiveness and location of the university can play a role in the decision making. Finally, an aspect that is increasingly important to the millennial generation, is the fact that we want to make a constructive contribution to this world. Those of my generation who were raised in the developed world have, most likely, only known abundance and wealth. This abundance and wealth has its effects on the values we seek in life and consequently also the values we seek in a job. For our parent's generation, wealth was of greater importance, being a factor that was less abundant in the time that they grew up. Since this wealth has continuously been present in most of our life's, most of us, (64% according to a study done by The Intelligence Group) (Hershatter and Epstein, 2010), find it important to actively participate in making this world a better place.

On the basis of these factors that determine the choice of study of a high school student, the question can be asked: at what point does agriculture lose from the popular studies? Why do students currently prefer other studies above those related to agriculture?

III - Image of agriculture perceived by students

1. Current image

The first step in attracting more students in the field of agriculture is increasing the general interest of students in the sector. At this point, the vast majority of high school students never even considers to study agricultural or any related science. As long as students remain ignorant to the sector they consequently will not inform themselves about the content and quality of the study, nor will they learn about the job opportunities this field can offer them. It is important to increase this interest in the agricultural sector in general in order that improvements in the quality of the study itself or its career possibilities can have a higher positive effect on the number of students choosing to study agriculture.

Currently the image of the field of agriculture in most of the developed countries is, to formulate it bluntly, "uncool". The majority of interviewed students coming from the developed region mentioned that students from other degrees in general enjoy a higher social status than they do. Several of them addressed the fact that they have to defend their choice of study to friends and family that are unfamiliar to the field and who are wondering why they didn't choose to study a "higher" degree, or a "real university study". This shows a reflection of the status that comes along with- and the general perception of agriculture and related sciences. Others however, mentioned that for them this was not exactly the case and that they did have a good image among other students. This was, for example, the case in Latin America (Chile and Mexico), where a relatively high percentage of the students studying agriculture at the universities of the interviewed students are coming from a big ranch or latifundium, and therefore enjoy a higher social status. This was also the case for those students who study agricultural- / bio-science engineering. The "engineering" part of the study delivered them a certain esteem in society, they said.

In developing countries, the case is different. In many of them a certain part of the population is facing food security problems themselves. This makes that the awareness of the role of an agronomist in their daily life is much bigger. In these countries, the students have indicated that the agricultural students enjoy a higher social status and the number of students showing interest in agricultural sciences is substantially higher.

2. What forms this image

Why is it that the image of agriculture in developed regions is so unfavourable compared to the image of other university degree sectors?

Firstly, this can be explained by the fact that agriculture is bound to a rural environment. Most of the youth is attracted to live in big cities that can offer a wide range of activities and opportunities for them. It is popular to be a YUP: Young Urban Professional. Unfortunately, the term YRP's (Young Rural Professionals) does not exist.

Secondly, the look associated with agriculture is in general less attractive than those of, for example, a businessman, lawyer or a doctor. Off course, this depends strongly on one's personal opinion but in general a dirty and smelly overall isn't found as appealing as a fancy suit, court dress or even something as a lab coat.

To conclude: one of the factors that influences the image of agriculture relates to the fact that the relationship between science and agriculture is not as strong as in other careers. From its very beginning onwards for many years agriculture was a practice without any scientific input. Off course, there have been improvements of agricultural practices but this was more due to an empirical effect comparable to Darwin's survival of the fittest: the agricultural practice that worked best was repeated the subsequent year. The low input of science into agricultural practise even continues nowadays. If you have no education and not the opportunity to find another job, the most obvious thing you would do to survive is to become a subsistent farmer. The cases for studies like medicine, economics or law look different. From the very beginning, these studies have been filled with a certain level of science and anyone working in this field has studied this science to a certain extent. The fact that agriculture has been, and still can be practiced without any level of education is unfortunately still influencing its image. This is confirmed by the students from developed countries in the interviews.

3. How to improve this image

Promoting the fact that agriculture has an important role in everyone's daily life is a way to improve the current image around agriculture and agricultural sciences. As one of the interviewed students nicely mentioned: "Our job will only disappear when people stop eating." People in the developed world are no longer aware of the link between food and agriculture. Their food comes from the supermarket where there is always abundance and an enormous array of choice. In their perception, food has completely lost its link with the fields where it comes from and with that it has lost its link with agriculture. To quote CIMMYT's Dr. Bram Govaerts "It is our task to bring the pride back to the fields".

The interviewed students mentioned as well that some of their universities were actively trying to promote the role of agronomy in society, but most of them mainly managed to reach those already active in the field of agriculture, not that part of society that is most unaware of the link between food and agriculture. They also said that it should not be seen as the task of the university to increase this awareness, but that this is more the responsibility of governments.

Another aspect that can improve the image of agricultural sciences is changing societal view that everyone working in the agricultural sector is regarded as a farmer. Unfortunately and incorrectly, this farmer is still too easily associated with a lower level of education due to factors mentioned earlier. This influences the whole agricultural sector, also the people with a university degree. Promoting specifically the work of agricultural researchers or agronomists can broaden the image of agriculture.

To conclude: making society more aware of the significance and highly challenging task the agricultural sector is facing, and making them aware of the actual figures on the increase in food pro-

duction that will be necessary, is an important factor in improving the image of agriculture. Currently there does not seem to be a link in society that connects the agricultural sector with the action of "making this world a better place", as mentioned one of the important values for this generation. Yet this is exactly the reason why Dr. Borlaug received the Nobel Peace Prize in 1970. Indeed his work and the work of many agronomists with him helped to keep the peace in a region where an enormous famine would have broken out had it not been for their knowledge on agricultural science. Since a second green revolution is needed to feed at least 9 billion people by 2050, similar heroic deeds can be delivered by agricultural practices as has been performed back in the '60s.

All of these aspects come down to the same problem: society does not know enough about the agricultural sector, its achievements, its challenges and the importance of our jobs to everyone, every day. Informing people about the role of agriculture, for example through more media attention, can increase the respect for the sector, can improve the image and in the end can result in a higher number of students interested in the study. Developing countries are an example where society, for unfortunate reasons, is much more aware of the role of agriculture in people's daily lives. At the same time however, these are countries where the agricultural students enjoy relatively a higher social status and where there is a higher percentage of students interested in studying agricultural sciences. These are exactly the changes we would like to see happening in the developed regions.

IV - Career possibilities

As mentioned earlier, the career possibilities in a particular sector play an important role in choosing a field of study. When you start studying, you, most likely, also have the intention to end up working in that same field. The number of available jobs, the job quality, its salary and the job security all play an important role in this decision making. How is the situation for the agricultural sector?

1. Career possibilities according to the students

In the interviews, the students were asked about their thoughts regarding career possibilities for graduates of agricultural sciences in their own country. Almost all students answered very positively about what they perceived were their future opportunities. According to what they heard from graduated students and on basis of the information provided by their respective universities, they believed that studying agriculture and related sciences was a very smart choice. Every single one of them mentions that they see their study as a great investment of both the money and time and none of them regrets their choice. They mentioned that they get the feeling it will be relatively easy to find a job compared to other studies. Only the students from Benin and Uganda mentioned that finding a job after graduation might be hard but unfortunately this is the case for most types of graduates in those countries. There is a division among the students regarding their opinion about the salary and the quality of the available jobs. Especially the South European countries interviewed (Spain, Italy and Croatia) mentioned that it is possible to find a job after graduation but currently the majority of those jobs are mostly practical and not as well paid as other university-levelled jobs.

2. Career possibilities according to the data

This positive feeling of the students about their career possibilities is well reflected in facts and figures related to graduates in the field of agriculture and the ease with which they can find a job.

Let's start with an example from Spain. Figures from Universidad Politécnica de Madrid show that 95% of all agricultural engineers/agronomists that graduate from this university have found a job within 1 year. It is even mentioned that being an agricultural engineer is the profession with one of the highest employability rates in times of crisis (Universia España, 2009), something that can be of great importance for youth in a country that is known for its high youth unemployment rates.

In Belgium, the same trends can be observed. 94% of all students who graduate from the master bio-science engineering have found a job within one year, which is above average compared to all other masters and also compared to other Masters of Science. Only civil engineering has higher employment rates one year after graduation (VDAB, 2013).

Also in Croatia the numbers of employment of agronomists look relatively positive. Compared to all other jobs, agronomists have 9% higher employability rate than the average (Hrvatski zavod za zapošljavanje [Croatian Employment Service], 2012).

To conclude with an example from Poland, data from the Warsaw University of Life Sciences (SGGW) shows that the agriculture related studies (agriculture and food technology) have a higher rate of employment of the graduates after one year than the average number of all graduates from all studies from this university (pers comm., SGGW International Relations Office).

In every of these four examples the employability for just graduated students turns out to be on average higher in the agro-food sector than the average of other sectors. These figures coincide with what the students mentioned in their interviews. With the projected need of increase in food production, the need for agro-food related positions will increase as described in the introduction. Therefore, it is likely that these employability numbers will stay positive for the sector. Promoting the high job security among high school students that are at the point of choosing their study can improve the numbers of students choosing for agricultural sciences.

V - Quality of education

It's of great importance that those few high school students in the developed countries that currently show an interest in studying agricultural sciences and gather more information about the study itself, also actually end up studying it. For this group of students, the quality and the attractiveness of the education itself matter.

1. Curricular

In the interviews, the students were asked their opinion regarding the quality of their particular study. Since the outcome is, naturally, strongly dependent on university, the type of education and the study itself, a generalized answer can't be given. Their respective answers can be found in the annex. They were also asked about what, in their eyes, makes a study a good study. One of the comments that came back was that part of the content of the study should be adapted to the current topics in society. Especially in our agro-food sector this is interesting since there is a lot happening in this field. For example, the rise in popularity of organic products and with it all types of judgements against conventional agriculture. What has our science to say on these issues? The interviewed students mentioned to appreciate it if these types of topics were implemented in their study to create a direct link between their education and the societal debate on these topics.

2. Extra - curricular

Next to the courses taught in a study, also the extra-curricular opportunities like internships, guest lectures or opportunities to attend conferences matter with regard to quality and attractiveness of a study.

Since all interviewed students are members of our international student organisation and most of them are active participants of the international events IAAS organises, their answers may be biased.

All the interviewees agreed to the fact that extra-curricular activities are a great extension to the study and that it increases the attractiveness of it a lot. By actively taking part in these types of

activities, they say you get more directly involved with all the interesting things going on in the agro-food sector, increasing your commitment for both your study and also these external activities. Fortunately, the range of extra-curricular opportunities that is available to agriculture related students are numerous. Not only are they organized by universities or the students themselves but there is an increasing trend of big international events organized by different organisations that address the upcoming food security problems and try to get youth actively involved in finding solutions for this problem. Examples include the yearly *Thought For Food Global Challenge (www.tffchallenge.com)*, the *Youth Ag-Summit (www.youthagsummit.com)* in Canberra this summer and also the 2014 *Google Science Fair (www.googlesciencefair.com)*, which was won by three 16 year old Irish girls with a project to "combat world hunger".

Also in this aspect of the study lays the opportunity to greatly improve the way of making promotion to attract more students. Even though these activities provide such a valuable extension to the courses in a study, the majority of the interviewed students mentioned that they were not aware of the possibilities of attending extra-curricular activities when they were choosing their study. They say it has been a very pleasant surprise to them, an extra gift coming along with their choice of study.

VI - Conclusion

To increase the number of students that choose to study agriculture or related sciences, several actions can be taken

Firstly, an improvement of the image of agriculture and its sciences is needed. Making people more aware of the role of agriculture in our daily life's, of the challenges all of us are facing regarding food security in the future and of the many different aspects the farm to fork chain contains, is a way to increase awareness of the importance of the sector, improve its images and with it possibly attract more young people.

Furthermore, both the career perspectives as well as the extra-curricular activities available for the agro-food sector are very positive. Advertisement of these aspects along with the promotion of the study itself among the youth that is about to choose their study is a way to increase the popularity of the study and win the battle from currently more popular studies.

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References

Alexandratos N. and Bruinsma J., 2012. World agriculture towards 2030/2050: the 2012 revision. ESA Working paper No. 12-03. Rome, FAO.

Universia España, 2009. [Online] Available at: http://www.universia.es/portada/actualidad/noticia_actualidad.jsp?noticia=102176 [Consulted 01-05-2015]

Hershatter A. and Epstein M., 2010. Millennials and the world of work: An organization and management perspective. In: *Journal of Business and Psychology*, 25.2, 211-223.

Hrvatski zavod za zapošljavanje [Croatian Employment Service], 2012. The system of labor markt information. [Online] Available at: http://llcg.dev.teched.hr/ALMIS-Dev/Occupation/Selected/2213177#tabs-0 [Consulted 01-05-2015].

VDAB (Vlaamse Dienst voor Arbeidsbemiddeling en Beroepsopleiding Studiedienst [Public Employment Service of Flanders, Study department]), 2014. Werkzoekende schoolverlaters in Vlaanderen, Brussel.

Annex 1 – Questionnaire and answers

1. Questions

1. Social Status

- 1.1 How is the awareness of the society in your country about the fact that we are facing a major World Food Problem? Do people know this?
- 1.2 Is your university actively promoting the role and importance of agronomy (the science) in your society.
- 1.3 How many students in your high school class considered studying agriculture? (Doesn't need to have been their actual choice, but at least showed some interest. %)
- 1.4 In your university, are the agricultural related students among the "cool-kids", are they being looked down on, or something in between?

2. Curricular

- 2.1 Do you think your university adapts the content of your study to the needs of society?
- 2.2 Do you feel confident you will have an interesting, secure and well paid job after graduation?
- 2.3 Does your university in cooperate the student wishes regarding contents of the curricula? If yes, how?
- 2.4 Do you think what you learn in your study will be useful in your future job. (%)

3. Extra-Curricular

- 3.1 Do you think that at your faculty there is a sufficient range of extra-curricular activities offered in the field of your study (e.g. guest lectures, science competitions, conferences, internships, IAAS activities)?
- 3.2 Do you think these activities increase the attractiveness of your study?

4. Other

- 4.1 Is it financially affordable to study? (Tuition fee, availability grants, living costs etc.
- 4.2 Do you think studying your study is a smart investment both in time and money?
- 4.3 How is the international student mobility at your faculty? (Erasmus(+), other exchanges) In case currently it's not easy to study abroad for some period during your study, if this would improve, do you think this will have any effect on the attractiveness of your study?
- 4.4 Did the ranking of your university influence your choice to study there?

2. Answers

2.1 Social status

Country	1.1. Awareness	1.2. Promotion Agronomy	1.3. % considering study ag.	1.4. Cool?
Benin	Yes - suffering themselves	Yes - helping subsistance farmers	15%	Yes
Canada	No - there is abundance	Sustainability is promoted	My school:1/600; in Quebec total 400/year (population: 8 mil.)	Generally: Marginal, but increasingly popular every year
Chile	No	Yes - but its more the task of the gov.	10%	Yes, we're the most popular (coolest parties)
Croatia 1	Not really – importing is cheap	Not much, but it's getting more	10%	Not so cool – middle
Croatia 2	Not really	Promote new techniques, farmers can't afford those	4%	Not so cool – middle
Germany	They have heard about it – doesn't influence their decisions	No	4%	Middle – (coolest parties)
Indonesia	Yes – ^ foodprices have huge impact	Yes	5%	1
Italy	No – there is abundance	Not in the general media, just in ag. Related	2-3 %	No, you're compared to a farmer, not real degree
Mexico	No – only concerned about the prices but don't see the reason of the ^\$	Yes my uni does it- but it's more the task of the gov.	1%	Cool! biggest parties; owning a farm =/= being farmer
Spain 1	Yes concerned but don't know about the solution	No, more awareness should be created	4% 1/25	Low technical students. We have to defend ourselves though civil engineers e.g. always directly gain respect
Spain 2	Not much awareness, not much in the media	Inside uni yes, to the rest of society no	1% I just choose it cause didn't know what to do	Cause we do ENGINEERING for this part they have respect. Agronomic part is not thought to be cool
Spain 3	In general ignorant, though not among ag. Students	Yes! There are events to involve kids more in ag.	0% even me not	From all engineers, we're the easiest. The other engineers don't take us serious

Country	1.1. Awareness	1.2. Promotion Agronomy	1.3. % considering study ag.	1.4. Cool?
Spain 4	Absolutely no, no attention in the media	Due to crisis, little investment in this	10%, only me choose it	Among other engineers at our school not good viewed
Belgium	Not really, not influencing decision making	A bit, often try to get research in the newspaper	1%	Among the engineers, the less cool ones.
Uganda	Majority knows, also high on political agenda but corruption problem	Yes, especially my faculty (Biosuma University)	45%	1
Ukraine	Not really, just own problem	Yes. Our uni is directly under the ministry of ag. And have attention for this	Almost none	Other students look down on us
Zimbabwe	Yes – we suffer ourselves	Yes directly with the farmers, but not rest of societ	All students in my high school who had biology had as only option to study ag	We are admired!!
Nepal	Yes – we suffer ourselves	Only 1 ag. Uni in whole country. They promote only under student	In the country: 80.000; 50 places !!!	High social status – strong selection —> we are smartest
USA	Depends on the type of education	Yes definitely	None except me (even in Ames, hometown of ISU)	Two types: cowboys/hippies. Both not super cool

2.2 Curricular

Country	2.1 adapt content	2.2 confident about job	2.3 incooperate student wish	2.4 usefullness (%)
Benin	Maybe, but too much theory	<20% get a job, <5% get interesting job	No	5-10%
Canada	Yes	Yes confident, but salery is lower than other uni graduates	Yes, every 2 years revised by comments given	A lot
Chile	1	Yes confident	Sometimes	<50%
Croatia 1	Not so much	Yes confident to find but well paid probably not	A bit, initiative comes from the professors	Some usefull / some less
Croatia 2	Yes, a lot of attention to sustainability	Yes, always can start your own farm. Being hired more difficult	Yes, students presented in the board meetings	97% really good content!

Country	2.1 adapt content	2.2 confident about job	2.3 incooperate student wish	2.4 usefullness (%)
Germany	Yes, more stress on ecology etc.	Yes. This is also how the study ispromoted	Try too, input of students is difficult	40%
Indonesia	Yes	Yes. I also learn how to create a job myself	Yes, every end of semester it's evaluated and adapted	Not so much. More softskill needed
Italy	Not so much	There are jobs, but in the field for which you don't need a degree	No, prof. Is the boss	50%
Mexico	Yes, but the target is economy and not sustainability eg.	Immideatly, already can be hired during your study	Supposed to	A lot ! But need more practicals
Spain 1	Yes close relationship, investigations carried out by the faculty	Yes I see great opportunities for next agri graduates	1	Very usefull 100%
Spain 2	Yes try to adapt it, though still traditional curriculum	Yes, I read it in an article	Student board that has the ability to talk with the board	50%
Spain 3	Yes try, but most of the professors are really old fashioned and hard to change what they teach	Absolutely, but not due to my degree but due to extra curricular activities I'm active in	No study plan is closed	10%, but it creates a way of thinking thats far more important
Spain 4	Most of the professors are really old fashioned and hard to change what they teach	Not bad for ag. Engineer but payed bad	Yes try to accurate the program	Yes most of the problems are focused on problems we face in the future
Belgium	Yes, actively ! Now have complete master for WFP	Yes	Yes, student every semester asked for opinion	50% (bach. Not so much)
Uganda	Not really, there is a lack of practicals	It's hard in Uganda, especially childeren of subsistant farmers	Yes they use the input of students in curricula adaptation	Yes it was usefull
Ukraine	1	The ag jobs pay very well and there are international companies	No we live in a regime	/
Zimbabwe	Trying too but it's not moving with the pase it should/	YES! But problem of corruption, connections are vital	Students in boardmeetings with professors, but ideas not always implemented	90%

Country	2.1 adapt content	2.2 confident about job	2.3 incooperate student wish	2.4 usefullness (%)
Nepal	We learn too high level – not applicable for local community	YES!	Not really, a lot of politics	Not much, too high technology
USA	Definitely	Yes	Yes, for honor students especially they make the curriculum very flexible	50% e

2.3 Extra Curricular

Country	3.1 sufficient range	3.2 increase attractiveness?	
Benin	Some but practicals are lacking	Yes	
Canada	A lot!	Yes, it brings good ambiance at school and among the students	
Chile	NOO !	Yes, and it also gives motivation to keep on studying	
Croatia 1	Not and not well advertised	Yes	
Croatia 2	You have to do internship but there is no network. IAAS helps	Yes	
Germany	Not too much, everything organizd by the students themselves	Yes, but the problem so far is it doesn't influence their choice cause students don't know about it when they start studying	
Indonesia	Yes	Yes, escpecially IAAS that makes a bridge to the professional world	
Italy	No, big problem, no money for this	Yes off course	
Mexico	Yes they offer a lot	Yes, marketing should focus on this	
Spain 1	There are few, but not encouraged	Totally !	
Spain 2	There are some but too few. If students show initiative a lot supported	Yes, it should be more advertised to promote the study	
Spain 3	There are a LOT! But really not well advertised	Absolutetely ! Focus and work more on that !	
Spain 4	/	1	
Belgium	Yes. Quite ok.	Yes for sure, more promotion needed	
Uganda	Not at all, now with new IAAS we hope it improves	If well packaged it can do so	
Ukraine	1	/	
Zimbabwe	Yes there are many	Not if the message isn't spread different. Now as starting student you don't know about this	
Nepal	Nothing: (we want more !	Yes, but not necessary, cause already very popular	
USA	Yes, there are a huge number, this is a reason to study ag!	Yes, the possibilities for ag. Students make them create impressive cv's	

2.4 Other

Country	4.1 Affordable	4.2 Smart investment?	4.3 International student mobility	4.4 Ranking
Benin	Very expensive, but some UNESCO grants	Yes	Recently intra ACP mobility	No
Canada	12.000\$ a year	Yes!	Good, but not much promotion. Also AISEC and IAAS	Yes it mattered
Chile	\$8000 a year	Yes	Receive a low no. Of students	No for bachelor not
Croatia 1	Free if you pass all	Yes	Yes a lot of opportunities but: expensive and not matching what is being missed at home	No
Croatia 2	Free if you pass all, also cheap housing available	Totally !	It is easy. More promotion would increase attractiveness	Not really
Germany	Same for all, not so expensive, mainly public transport card	Yes	You miss a semester but easy to go	Not in this case, only if it would have been the worst
Indonesia	Yes expensive	Yes, food always needed	Possible	Yes, national ranking. My campus is best of Indonesia
Italy	Depends on parents income: €500-€2000	Depends, now its difficult to find a job	Yes its easy, thanks to EU money	No, more important how close
Mexico	Private is very expensive, but there are some scholarschips	Yes I would always make the same choice	Yes a lot of opportunities, but its expensive and you don't get a grant	In general my uni is good, that makes it attractive, not specially my faculty
Spain 1	Costs increase every year and less scholarschip opportunities	Yes	It is easy and encouraged	No, more location mattered
Spain 2	Increase every year	Yes	Yes when you apply pretty much sure you can go	Yes Politécnica is one of the best of Spain
Spain 3	It increased a lot! 2x more than it used to be. More scholarships needed. Still afordable compaired to other countriesd	Yes	Yes many opportunities	Yes the best uni or engineers of spains
Spain 4	Huge increase of prices and Madrid as a city is expensive to live	Yes for sure	Yes very easy but English level is a problem	Not at all

Country	4.1 Affordable	4.2 Smart investment?	4.3 International student mobility	4.4 Ranking
Belgium	Yes	Yes	Very easy ! Don't miss a semester, grants guarenteed	A bit, but both Ghent and Leuven are good
Uganda	It's difficult	Yes	Trying, but few scholarships. It improves greately the attractiveness	No, the type of courses mattered
Ukraine	No it's expensive and corruption (in total I paid \$8000 – in envelop)	Yes	l	1
Zimbabwe	Broad range: from cheap to expensive schools	Yes	Very little places (2 for whole uni)	Not the ranking, only that its private
Nepal	All students in this 1 ag uni get (partly) scholarship, so yes	Yes	Nothing, not even hosting	No, there is only 1
USA	Studying ag. In my college is more affordable	Yes	Yes, but no guaranteed credit transfer (may inmply extra costs, of an extra year of studying)	Somewhat, Iowa State University is well known and offered me good financial support