

Leadership in **climate-smart agriculture** to bring benefits for Ireland say experts and stakeholders

National survey analysis

Joseph Curtin



The Institute of International and European Affairs

Tel: (353) 1-874 6756.

Fax: (353) 1-878 6880.

E-mail: reception@iiea.com.

Web: www.iiea.com

8 North Great Georges Street,

Dublin 1,

Ireland

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Written by Joseph Curtin.

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Climate-Smart Agriculture

LEADERSHIP FORUM



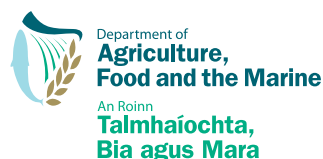
Lead Supporters



INGREDIENTS
IRELAND

DIAGEO

Supporters



SUMMARY FINDINGS

The [IIEA/RDS Leadership Forum on Climate-Smart Agriculture](#) conducted an on-line survey, the objective of which was to come to a greater understanding of how Irish agriculture should respond to the challenge of climate change, with a particular focus on exploring climate-smart agriculture (CSA) approaches. The survey was circulated to 1,504 Irish experts and stakeholders working in the fields of agriculture and climate change. It targeted government officials, independent researchers, NGOs, farming groups, agri-business professionals, and other private sector executives. Of those contacted 210 responses were received (14%).

Responses indicated that CSA has entered the lexicon in Ireland, with the vast majority of respondents familiar with the term. The three pillars of CSA were all considered to be vital by all stakeholders and experts, irrespective of their backgrounds, namely:

- Reducing agricultural emissions
- Adaptation agriculture to the impacts of climate change; and
- Enhancing food security/farm incomes.

It was interesting to note that farming groups and agri-business professionals considered “adaptation” to climate change and “mitigation” of emissions important, while NGOs for their part cited “farm incomes” as important. There is clearly therefore common ground to be built upon when it comes to determining Irish agriculture’s strategic response to climate change.

Unsurprisingly all respondent cohorts saw EU climate targets as a major challenge for Irish agriculture. It was noteworthy, however, that a great majority in all cohorts surveyed also saw an opportunity. An overwhelming majority agreed that establishing Irish leadership on CSA could offer benefits for the agri-food sector, and again, this finding was consistent across all cohorts.

To become a leader (our earlier [international survey](#) results suggest that Ireland is not yet perceived as a leader), a large majority of respondents deemed all three strategies suggested by the survey as important, namely:

- 1. Domestic deployment of CSA**
- 2. CSA partnerships with developing economies, and**
- 3. Leading in international negotiations.**

However, domestic deployment was deemed the priority area for attention, suggesting that the Ireland should focus on getting its own house in order first before it can show real leadership abroad.

But how exactly should Ireland implement CSA at home? Some cohorts - including farmers, agri-business professionals and government officials – identified the most important action as “optimising agricultural

land use environmentally and economically (between beef, dairy, forestry and other agriculture uses)". There has been a lack of focus on optimising land use in Irish policy development and research to date, and this area therefore perhaps merits further exploration and focus.

Respondents across all cohorts also identified better fertilisation, research and enhancing biodiversity as absolutely key. Boosting afforestation and soil carbon, resourcing farm extension services and better manure management were also highlighted as areas for attention.

"Building CSA relationships with development partners" was identified as the second most important strategy after domestic deployment of CSA. Somewhat surprisingly "supporting knowledge transfer initiatives from Irish farmers and agri-business" was considered the most important action to further this objective. This area could be considered the least developed in policy at this time and might therefore also warrant further exploration and attention. "Increased funding for capacity building in developing countries through aid programmes" was also rated highly. By far the least desirable measure for all cohorts was "offsetting" approaches, that is, supporting emissions reduction projects in developing countries instead of reducing emissions domestically.

Finally, if Ireland wants to play a leadership role in promoting CSA internationally, experts and stakeholders highlighted the EU as by far the most important fora. This is unsurprising considering the crucial importance of 2030 framework for climate and energy and the Common Agriculture Policy (CAP) negotiations for the development of Irish agriculture. The UN and the Global Alliance for CSA were considered less important.

In-depth Analysis

Background

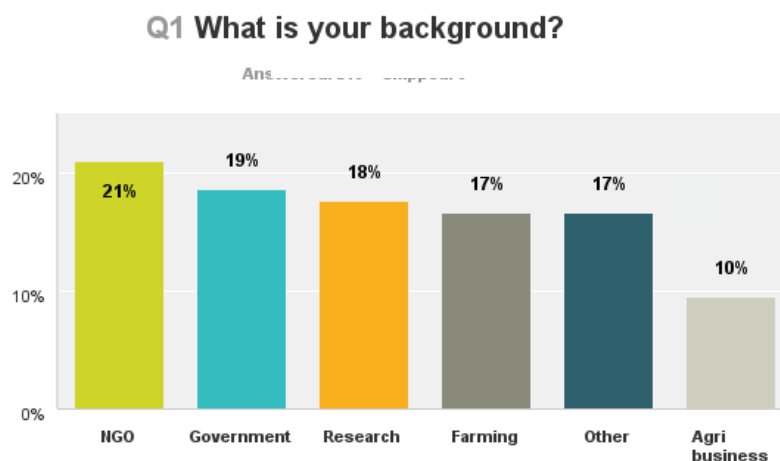
The [IIEA/RDS Leadership Forum on Climate-Smart Agriculture](#) conducted an on-line survey, which was circulated by email to 1,504 Irish experts and stakeholders working in the fields of agriculture and climate change between 29th April and 8th May 2014. The objective of the survey was to come to a greater understanding of how Irish agriculture should respond to the challenge of climate change. In particular it explored the appropriateness of climate-smart agriculture (CSA) for Ireland, within the context of the establishment of the Global Alliance for Climate-Smart Agriculture (GACSA).

The Sample

A mailing list was primarily comprised of RDS and IIEA contacts for climate change and agriculture stakeholders. A total of 1,504 experts and stakeholders were directly emailed, and the link was also posted on social media such as the IIEA's facebook and twitter accounts. Furthermore, the [Advisory Committee](#) of the project, which is comprised of public and private organisations working in the agriculture and environment fields, as well as farmer representative organisations and NGOs, were also requested to circulate the survey to their networks as appropriate.

We received a total of 210 responses over a 10-day period, a 14% response rate according to the numbers directly mailed, which is considered above normal for a targeted external survey.¹ When the use of social media and sharing of the survey by Steering Committee members is considered, the total response rate may have been closer to the 10% target.

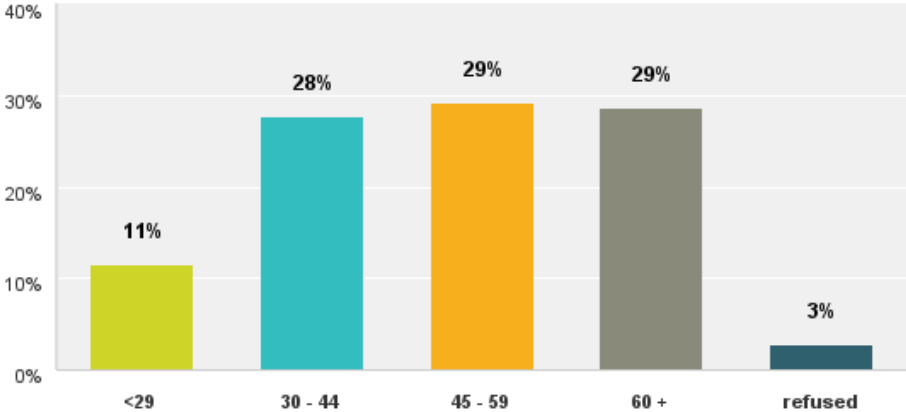
Of this total, a broad cross-section of backgrounds was represented. While the largest single grouping was NGOs at 21% of respondents, those directly involved in farming (agri-business and farmers combined) accounted for 27% of responses. Government organisations and independent researchers were also well represented in the sample distribution at 19% and 18% of respondents respectively. 17% of respondents did not fall into any of these categories.



1 <http://www.surveygizmo.com/survey-blog/survey-response-rates/>

Overall a good age distribution was achieved, although under 30s were somewhat underrepresented among respondents.

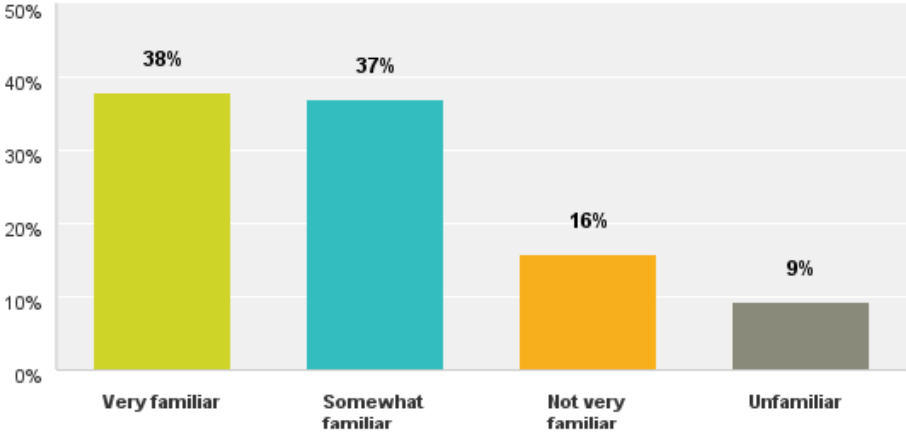
Q2 What is your age?



Climate-smart agriculture

Respondents were well informed on CSA. Three quarters of our respondents were either “very familiar” or “familiar” with the term “climate-smart agriculture”. Given that the IIEA/RDS have been running a series of events and seminars on the topic, it was encouraging that this relatively new concept has entered the lexicon, at least among experts and stakeholders who were the target of the survey.

Q3 How familiar are you with the term "climate-smart agriculture"?

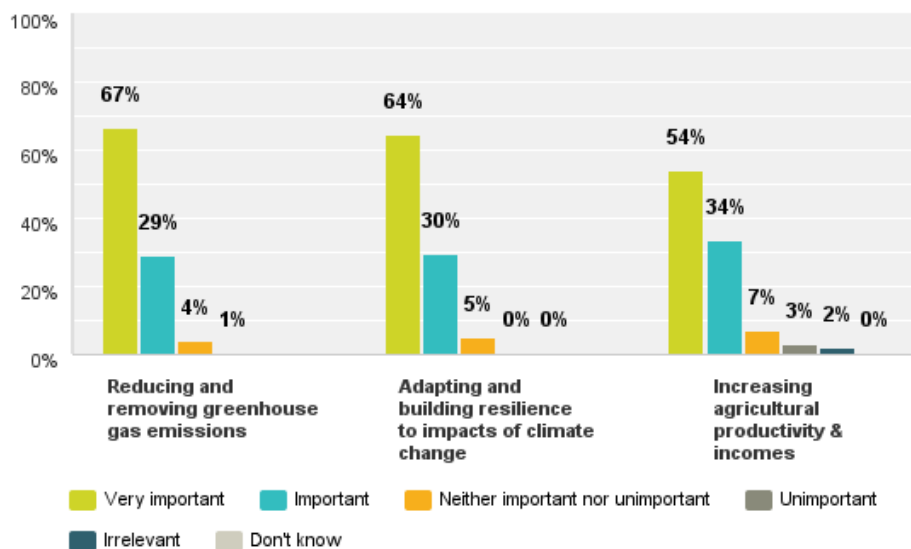


With respect to the three pillars of CSA, namely:

1. Resilience & adaptation to climate change
2. Farm incomes, productivity & food security, and
3. Mitigating greenhouse gas emissions

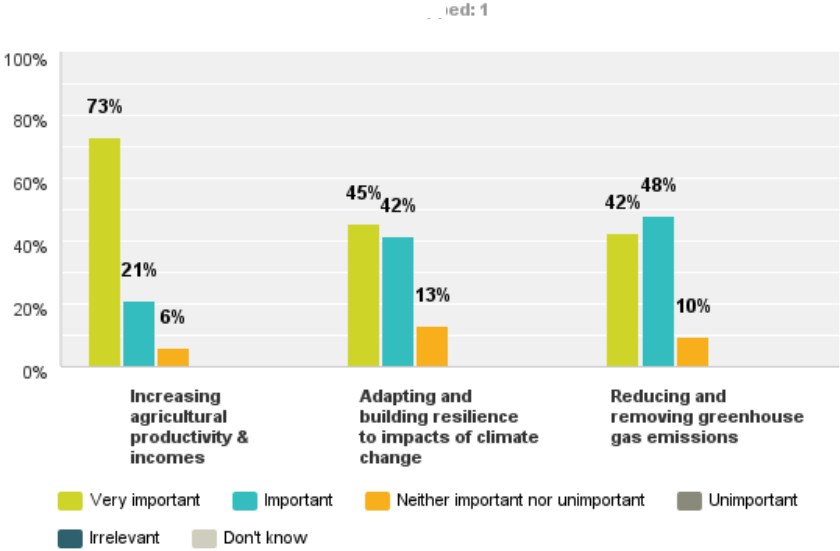
the overwhelming majority of respondents clearly view all three concerns as “very important” or “important”. Mirroring the findings of the international survey, slightly more respondents choose mitigating emissions as “very important”. Very few respondents choose “don’t know” for any questions, again attesting to the knowledge base of respondents.

Q4 Please rate how important you think these three considerations are for agriculture:



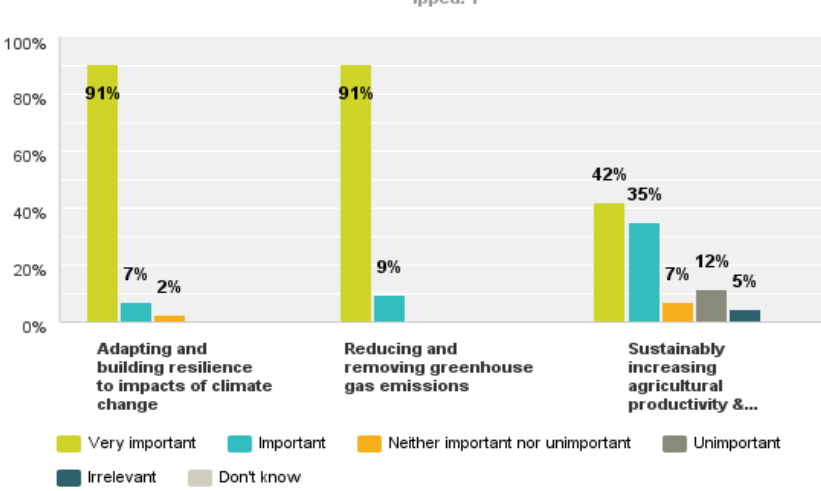
Looking exclusively at farmers and agri-business professionals (graphic below), the picture changes somewhat. “Sustainably increasing incomes and productivity” comes through far more strongly, but interestingly, even in this sub-sample, over 87% consider adaptation and mitigation “very important” or “important”.

Q4 Please rate how important you think these three considerations are for agriculture:



As might be expected, for NGOs (graphic below) adaptation and mitigation were considered “very important” by a vast majority, however a very significant majority indicated that “farm incomes” were also “important’ or “very important”. We conclude therefore that there is clearly quite a lot of common ground between all groups which can be built upon.

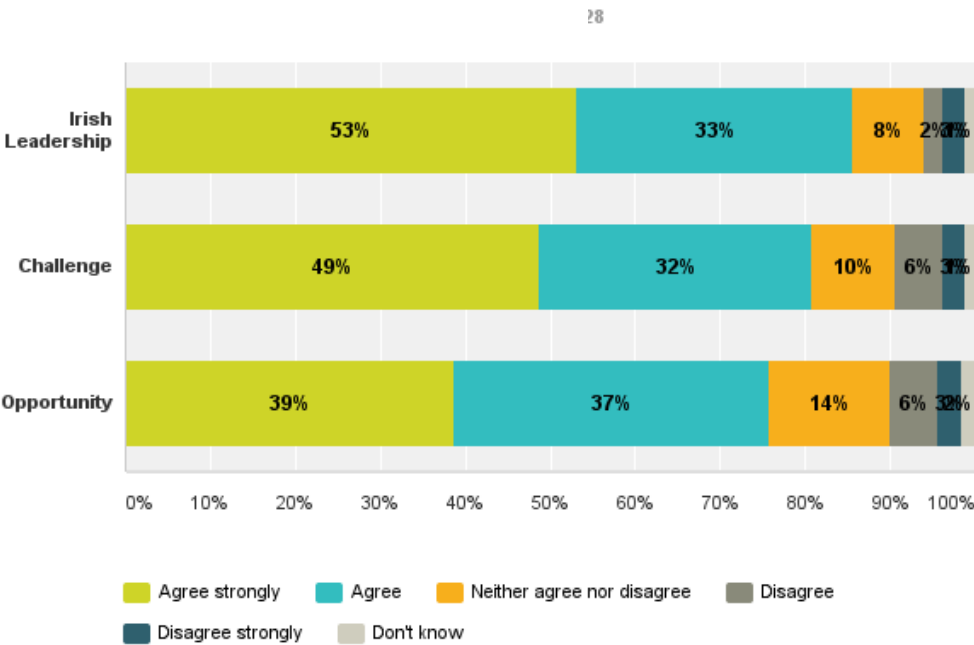
Q4 Please rate how important you think these three considerations are for agriculture:



Irish Leadership

Do the onerous emissions reduction targets which apply to Ireland under EU law pose a challenge or an opportunity for Ireland? Unsurprisingly 81% “agree strongly” or “agree” that “Ireland’s EU emissions targets pose a big challenge to the expansion plans of the agriculture sector in Ireland”. Perhaps somewhat more surprisingly, the majority of experts and stakeholders also see an opportunity, with 76% agreeing or agreeing strongly that “Ireland’s EU emissions targets present an opportunity for Ireland to become a leader in climate-smart agriculture”. Furthermore, 86% of respondents “agree strongly” or “agree” that “establishing Irish leadership on climate-smart agriculture could offer benefits for the agri-food sector”. These findings were consistent across all groupings, with farmers and agri-business professionals slightly less optimistic about the opportunity (28% of this cohort “neither agreed nor disagreed” or “disagreed” that there was an opportunity, but nearly 90% saw a benefit from CSA leadership).

Q5 Please rate your level of agreement with the following statements:



An overwhelming majority of stakeholders and experts therefore saw benefits to the sector from Irish Leadership. It is noteworthy that our [international stakeholder survey](#) illustrated that Ireland is not yet seen as a global leader, notwithstanding advances that have been made in domestic policy, international diplomacy and in our partnerships with developing countries. It is useful therefore to explore the idea of leadership in more detail.

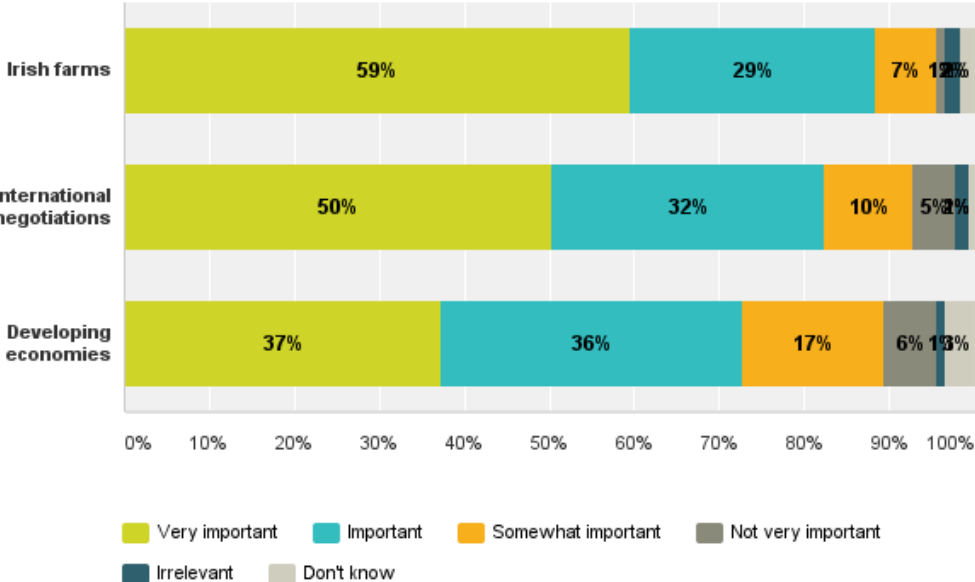
The most important strategy identified for CSA leadership is “deploying climate-smart agriculture on Irish farms” which 59% of stakeholders saw as “very important” and a further 29% saw as “important”. “Playing a leadership role in EU and international negotiations relevant to climate change and agriculture” was the second most popular option with 82% considering this “very important” or “important”. This is perhaps unsurprising given the importance for international and EU processes for the development of Irish

agriculture. “Supporting climate-smart agriculture in developing economies” was deemed “very important” or “important” by 73% of respondents.

While clearly the three strategies (corresponding with the three work streams of the [IIEA/RDS Leadership Forum](#)) for developing a leadership position are therefore all deemed important by a large majority of experts and stakeholders, a view emerges that Ireland needs to get its own house in order first before it can show real leadership abroad. These findings were broadly consistent across farming communities, NGOs, researchers and government officials. Farming communities were marginally less likely to see developing economies as important in this respect, whereas NGOs placed a somewhat higher rating on this aspect of leadership.

Q6 Please rate the importance of the following elements in establishing an international leadership position on climate-smart agriculture:

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Deploying CSA in Ireland

Given the importance ascribed to deploying CSA on Irish farms, it is useful to explore in more detail respondents' priorities for domestic action. Eleven options and a comments section were provided in the survey for respondents to choose from.

Four strategies achieved a particularly high degree of consensus, with over 50% of respondents seeing the following as "very important":

1. Use of less polluting fertilisers & more efficient fertiliser use
2. Investing in research & education
3. Optimising agricultural land use (beef, dairy, forestry and other agriculture) environmentally and economically
4. Maintaining and enhancing biodiversity

The high ranking for maintaining biodiversity is notable as this is not traditionally included as pillar of CSA, but the survey results indicate that biodiversity must not be neglected or forgotten while dealing with the climate issue. While there is arguably a strong policy focus on 1, 2 and 4 above in the current Rural Development Strategy, 3, optimising land use (economically and environmentally) between the large sectors, beef, dairy, forestry, and other, has not been a central focus in policy. Rather the primary focus has been on techno-economic analysis of mitigation measures rather than focusing on how to optimise land use between these sectors. This is certainly therefore an interesting finding worthy of further investigation.

A further four strategies were considered "very important" or "important" by over 80% of respondents, as follows:

5. Improved soil carbon management
6. Afforestation and agro-forestry
7. Investing in knowledge transfer and farm extension services
8. Better manure management

The relatively low ranking for forestry is perhaps surprising given its potential to sequester emissions, though some consideration of forestry is perhaps implicit in the "land use optimisation" option above.

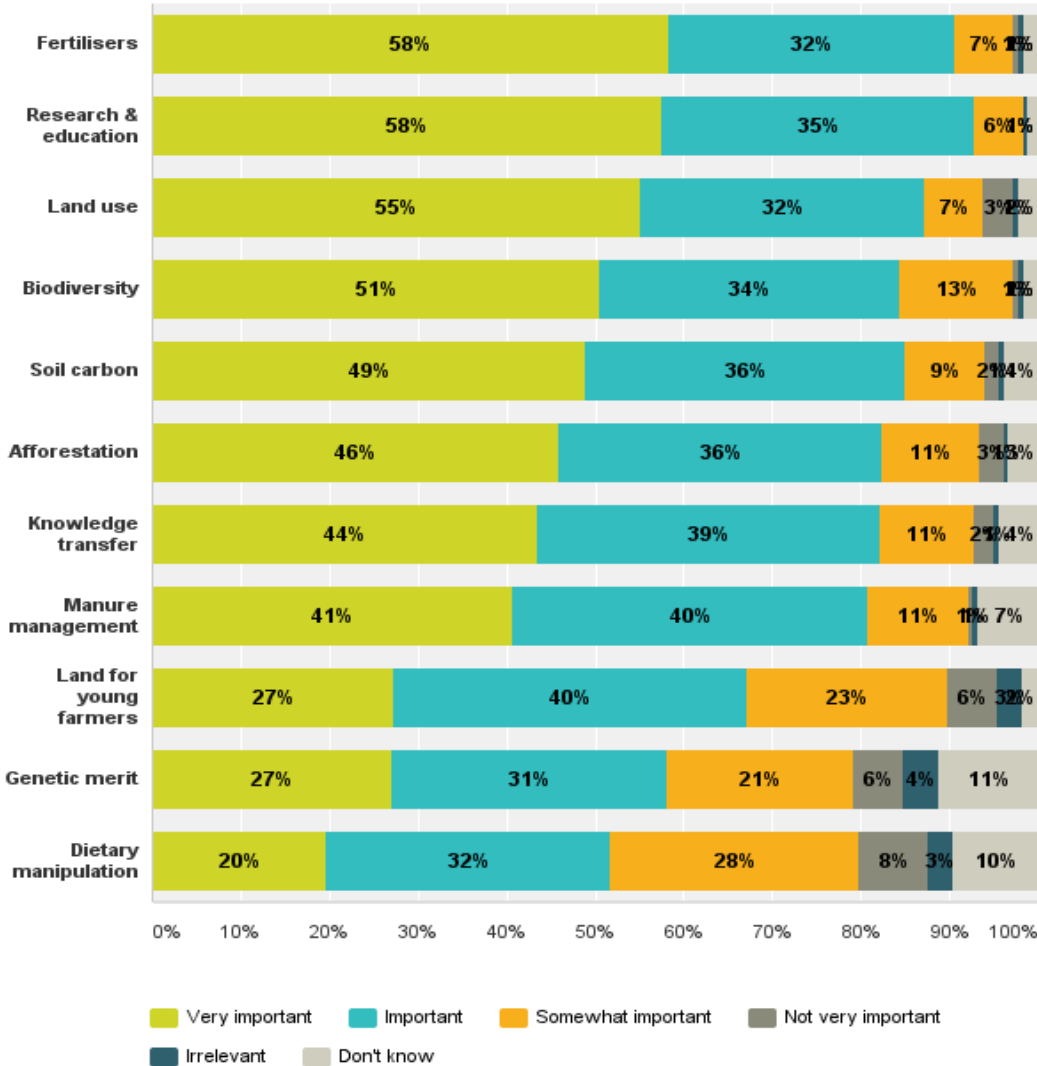
Finally with respect to the remaining three strategies:

9. Access to land for young farmers
10. Improving the genetic merit of the herd
11. Dietary manipulation

These were considered somewhat less central by respondents, though all still are considered “somewhat important” or better by a majority of respondents.

Looking into the preferences of those from different backgrounds in more detail, NGOs prioritised biodiversity and were far less likely to favourably view technological fixes such as dietary manipulation or improving the genetic merit of the herd. A huge majority of famers and agribusiness saw “optimisation of land use environmentally and economically” as “very important”, outranking other options by a large degree. For Government officials this option also came out on top. Independent researchers and academies, however, saw fertilisers as having the most potential by a significant degree, and this cohort also identified research and land use optimisation as very important. Finally, there were 32 comments added to this section, identifying a wide variety of views. Several identified food waste as a key issue, while some comments and subsequent emails to the IIEA criticised the focus of the survey as too narrow. All are included in the appendix below.

Q7 Please rate the importance of the following actions to promote climate-smart agriculture in Ireland:



Developing economies

Developing CSA-based relationships with development partners, while ranked third most important by respondents above, was clearly still identified as an important aspect of CSA leadership. The survey offered five options for the consideration of respondents in this respect, as well as a comment box option. Two thirds or more of respondents rated the following four options as either “very important” or “important”:

1. Supporting knowledge transfer initiatives from Irish farmers and agri-business
2. Increased funding for capacity building in developing countries through aid programmes
3. Supporting the work of Irish development NGOs
4. Increased funding for on-farm activities in developing countries through aid programmes.

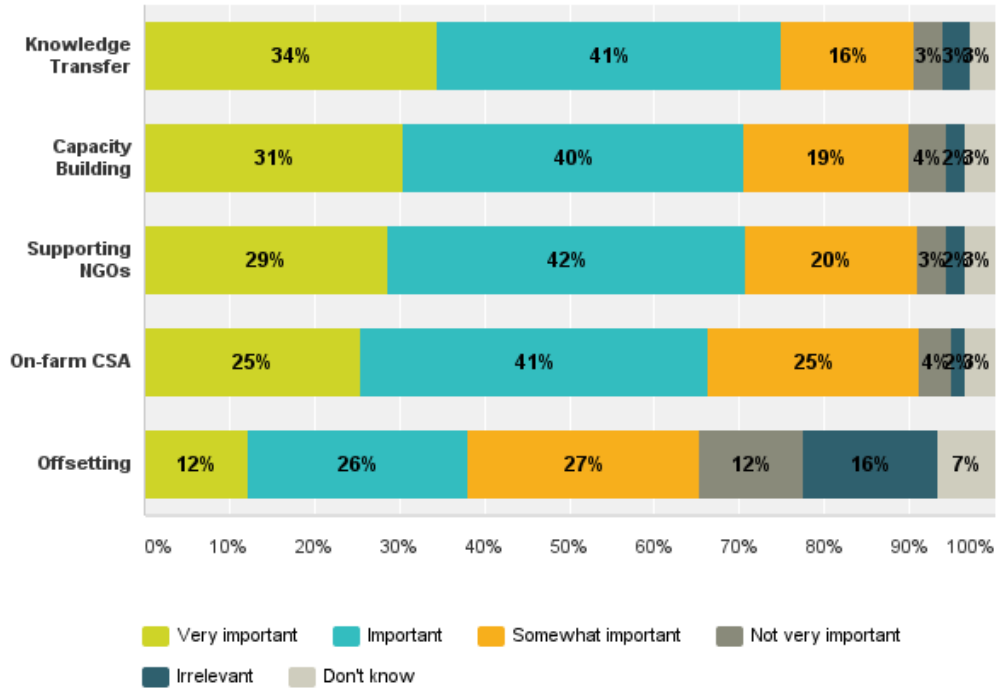
Increased funding for on-farm activities in developing countries through aid programmes. It is interesting to note the knowledge transfer from Irish farms and agri-business was the most favoured option, albeit by a small margin. This is perhaps the least developed option in Government policy at this time. This was by a considerable margin the most popular option among farmers and agri-businesses, with 68% of this sub-sample considering this “important” or “very important”. This cohort, however, was more sceptical in general compared to the rest of respondents of the importance of the 5 actions outlined in this section. Nevertheless, knowledge transfer certainly appears an area for further attention.

Interestingly, the final option:

5. Offsetting of increased Irish emissions through support for projects in developing economies

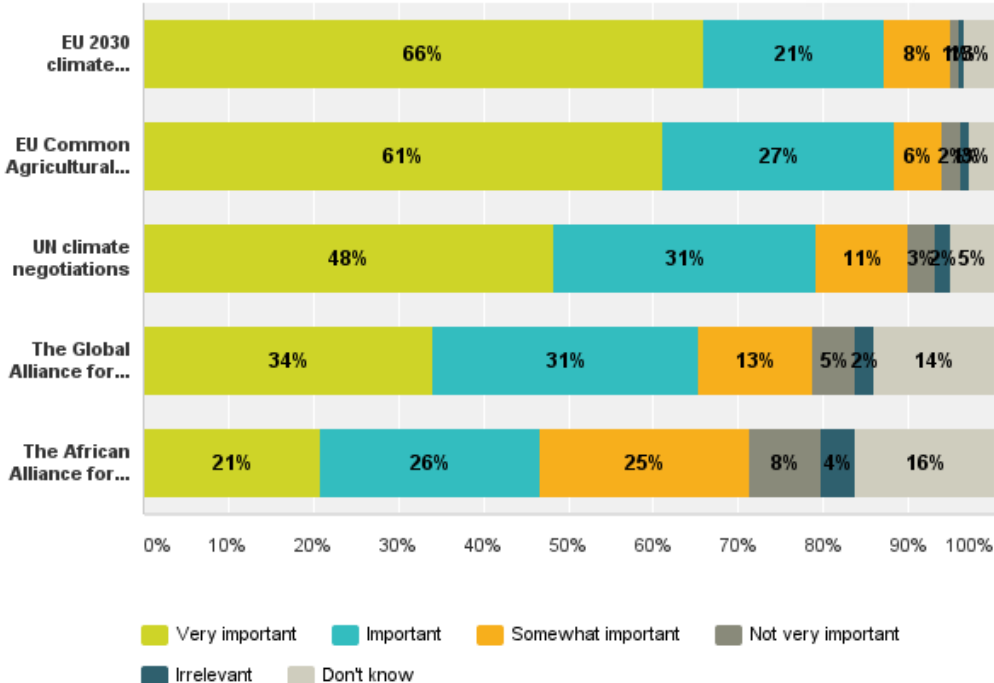
was considered by far the least desirable among all cohorts by a large margin, particularly NGOs. On current projections “offsetting” is by default the option that is most likely to be part of the Irish response to increased agricultural emissions. A wide variety of comments on this question are included in the appendix.

Q8 Please rate the importance of the following actions to promote climate-smart agriculture in developing countries:



Finally, respondents highlighted international negotiations as a second priority area for action if a leadership position is to be established after domestic action. Respondents were requested to indicate the importance of five international organisations or processes in this respect. Clearly the EU is considered the most important fora, with the 2030 framework for climate and energy and CAP negotiations identified as of primary importance. The UNFCCC ranked next in importance, with the Global and African Alliances for CSA identified as considerably less important. This is perhaps unsurprising given that these organisations are relatively new and have little direct impact on Irish agricultural development compared to the other two.

Q9 Please rate the importance of Ireland's role at the following international fora for its reputation in climate-smart agriculture:



Appendix

Comments on question 7, domestic implementation:

1. Steady reduction in ruminant numbers, esp. beef cattle.
2. Developing and promoting markets for sustainably-produced food from Ireland
3. Hydroponically grown fodder 365
4. Facilitating domestic offsetting
5. Grazing management, sward composition, permaculture
6. Realignment to lower carbon agricultural systems. less and better food
7. Enhancing native areas of Biodiversity/ especially native trees of native provenance
8. Focus on absolute reduction in emissions, not efficiency or intensity
9. Wider stakeholder engagement in the climate change and agriculture debate in Ireland.
10. Use of anaerobic digesters
11. Improved education facilities for those running farms or about to inherit.
12. Bio-char for sequestration
13. Improving Animal Health so that all animals perform optimally relative to their GHG production
14. Efficient use of biomass and waste e.g. Anaerobic digestion, CHP
15. Account for carbon in hedgerow network separately in LULUCF statistics
16. Optimising non-food activities land use as alternative income streams especially bio-energy resources
17. Wildlife habitat enhancements
18. Reduce beef and dairy production to reduce emissions
19. Precision farming where suitable, soil quality, water quality, natural capital accounting
20. Protection of ecological services (e.g. wetlands, traditional farming methods)
21. Question 4 is badly phrased and internally contradictory
22. Development of the farm partnership scheme in a co-operative direction
23. Reduce the use of organic farming...
24. See below comments on 8
25. Use of incentives to reward effort/change
26. Pyrolysis of biomass for bio-char to sequester in soil
27. Now an overreliance on beef & dairy exports.
28. Production of more non-animal protein
29. Encouraging re-localization where feasible, promoting small scale intensive horticulture
30. Establishing correct and believable calculations to measure factors contributing to CC
31. Carbon neutral farms though balanced approach
32. Research relevant to improving farming practices

Comments on question 8, promoting CSA in developing countries:

1. Steady reduction in ruminant numbers, especially beef cattle.
2. Further info submitted by email
3. There doesn't seem to be another place to put a comment, so I feel I should say that the survey pre-supposes that Climate Smart Agriculture is the only way forward to meet our food needs. It is the only way forward to maintain our perceived economic needs, however currently the food system, in which 80% of food is currently wasted is more problematic. If we actually bring production in line with consumption, this would be far more effective in the short term. Agricultural practices need to become more sustainable, but intensifying land use for agricultural purposes and calling it sustainable is a bit of an oxymoron! I agree with all of the statements in most of this survey purely because other alternatives are not present and the nuances of the issues are not elaborated on or explored. That being said it may not be the place for such a discussion, however you should be aware that this is a highly biased survey as a result. Still valuable but clearly biased.
4. Building the capacities of Irish NGO's in this area. Currently there is an over emphasis on advocacy possibly because they don't fully the topic
5. Permaculture demonstration projects
6. Re-align the global food systems to stop dumping low quality food into developing countries
7. It is crucial that climate sensitive agriculture in developing countries is nationally owned and let by farmers, not pushed by developed countries that support 'climate smart' agriculture. It should chiefly focus on adaptation to climate change, particularly in Least Developed countries that are at most risk
8. Capacity building is key
9. Increased emissions in Ireland will effect developing countries and we have an onus to take that into account
10. Leading by example
11. Not offsetting of Irish emissions
12. Note supporting developing countries will not resolve sustainability issues in Ireland
13. To be a leader, Ireland cannot "export" this challenge through building capacity in developing countries. Ireland has to develop management solutions (techniques/ products/ knowledge) and apply locally to meet Harvest 2020 and EU Carbon targets. Being able to extend knowledge/ support to developing countries should be considered a bonus.
14. Ireland should not be increasing emissions in Irish agriculture
15. Sitting on Global Roundtables - thought leadership
16. Avoidance of capitalist extensive mechanized monocultures etc
17. Most important that Ireland fully develop our renewable energy resources e.g onshore and offshore wind, solar, biomass etc. and develop an export market for RE and get Green House Gas credits for these credits against our Agri. exports
18. Establish internationally recognised agro-environment courses
19. Offsets in developing countries = land grabs and corruption
20. Support for community organisations in rural areas

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