ANSWERS TO QUESTIONS ON NOTICE

Additional Estimates February 2011

Agriculture, Fisheries and Forestry

Question: 98

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics and Sciences

Topic: Drivers and Barriers to the Management of Native Vegetation on Private Land.

Proof Hansard Page: 82-83 (21/02/2011)

Senator Siewert asked:

Senator SIEWERT—I understand you have started a project called drivers and barriers to the management of native vegetation on private land.

Mr Glyde—Correct.

Senator SIEWERT—I cannot find it very easily. Where would I find the details about that particular project?

Mr Morris—The project is still underway. It was one, I believe, contracted to us from the sustainable resource management area of the department. But if you would like a copy of the terms of reference—

Senator SIEWERT—That would be appreciated. Terms of reference, how you are going about it, how long it is going to take, who is being consulted, what the purposes are, who commissioned it and why would be really useful.

Mr Morris—Yes.

Senator SIEWERT—Although it is about drivers and barriers, why was it commissioned and how long ago? Can you tell me that now?

Mr Morris—I do not have the exact date, but we can provide that.

...

Senator SIEWERT—And when you are talking about broadacre agriculture, does that mean you are not looking at rangelands?

Mr Morris—Rangelands are included in broadacre, so we look at three agro-economic zones in Australia: the high rainfall zone, which is mainly coastal areas, the wheat/sheep zone, which is the major producing areas in Australia, and then the pastoral zone, which is I think what you referred to as rangelands.

Senator SIEWERT—So you are undertaking it in the pastoral zone. If you could get me the terms of reference and all those details, that would be very much appreciated.

Answer:

The terms of reference for the project entitled 'Drivers and barriers to better management of native vegetation on private land' are provided at Attachment A. The project was commissioned by the Sustainable Resource Management Division of the Department of Agriculture, Fisheries and Forestry in June 2010. It is due for completion by the end of September 2011.

The project is designed to gain a better understanding of the nature of the barriers and drivers to native vegetation management on private land, and involves a national survey of farmers, case studies and analysis.

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Question: 98 (continued)

Groups consulted as part of this project include regional natural resource management groups, state and territory governments, industry bodies, landholders, non-government organisations and research institutions. Approximately 1000 farmers will be asked to provide responses to the survey questions. These farmers are located in the high rainfall, pastoral (including rangelands) and wheat-sheep zones. Further consultations will occur as part of the case studies.

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Question: 98 (continued)

Attachment A: Project terms of reference

Drivers and barriers to better management of native vegetation on private land

This project seeks to understand the drivers for native vegetation management on agricultural land, especially land clearing, and attitudes towards existing policy and programs for native vegetation management. This will be done through a national survey of farmers, regional case studies, and other work as required including spatial analysis of existing social, economic and environmental data. The aims are to:

- (a) understand the current and recent drivers of native vegetation management on agricultural land (why and where landholders retain, manage, plant or clear native vegetation)
- (b) understand which drivers are likely to be important in the future
- (c) use regional case studies to examine the interaction between social, economic and environmental drivers for vegetation management, and preferences for different policy options and
- (d) develop a better understanding of how to adapt the policy mix to a regional context, to help farmers and landholders balance production and conservation.

The results will assist in refining the application of relevant legislation, and designing and implementing targeted programs to improve native vegetation management, tailored to the needs of farmers.

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Agriculture, Fisheries and Forestry

Question: 99

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics

and Sciences

Topic: Agricultural productivity growth

Proof Hansard Page: Written

Senator Colbeck asked:

1. Can you provide the latest data on agricultural productivity growth and are you meeting your goal of boosting productivity growth above the long-term average? If not, what are the reasons?

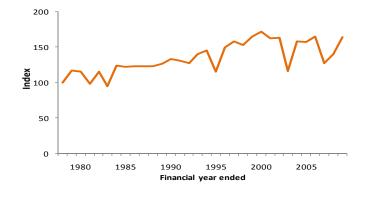
2. Can you provide a comparison of agricultural productivity growth each year over the past 30 years?

Answer:

- Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES)
 estimates total factor productivity growth for the broadacre and dairy industries each
 year. The latest data, released in March 2011, indicates that:
 - total factor productivity growth for the broadacre farm sector (non-irrigated crops, beef and sheep) has averaged 1.3 per cent a year between 1977–78 and 2008–09
 - dairy industry total factor productivity growth has averaged 0.8 per cent a year since 1988–89.

ABARES research suggests that broadacre productivity growth has been slowing since the mid-1990s, in part, due to poor seasonal conditions in recent years and declining investment in public research and development and extension.

ABARES latest research on productivity was published in the recently released
 Australian Commodities March Quarter 2011 (pp. 218-234).
 A comparison of agricultural productivity growth for the broadacre industries since 1977-78 is shown below:



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Agriculture, Fisheries and Forestry

Question: 100

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics

and Sciences

Topic: Water Storage Capacity **Proof Hansard Page:** Written

Senator Colbeck asked:

- 1. What assessments has the Department done in relation to our water storage capacity across the nation and has any consideration been given to this issue in light of the recent flood events?
- 2. Does the Department recognise the importance of water storage capacity to agricultural production what strategies are in place to enhance water storage capacity?
- 3. Can you provide some details of DAFF's involvement in the issue of water storage capacity over the past 5 years?

Answer:

1. Australian Bureau of Agricultural and Resource Economics and Sciences (ABARES) has assessed the direct impact of recent floods on agricultural production and value of exports, but has not undertaken any assessment of national water storage capacities.

The responsibility for determining the appropriate levels of storage infrastructure (and any cost benefit analysis of new infrastructure investment) lies with state water departments. At a Commonwealth level, the Department of Sustainability, Environment, Water, Population and Communities has carriage of these issues.

ABARES has undertaken research on the management of irrigation water storages, specifically on the design of water storage rights (such as carryover rights). See Hughes and Goesch (2009a, 2009b) for more information.

- 2. The department recognises that water storage facilities are critical for irrigated agricultural production. However, the responsibility for determining the appropriate levels of storage infrastructure (and any cost benefit analysis of new infrastructure investment) lies with state water departments.
- 3. The department (ABARES) monitors dam storage levels on weekly and monthly basis. This information is reported by ABARES in the *Weekly Australian climate*, *water and commodity price update* and in the *Australian climate and agricultural monthly update*, which are available from the ABARES website (www.abares.gov.au/publications).

ABARES has undertaken research on the management of irrigation water storages, specifically on the design of water storage rights (such as carryover rights). See Hughes and Goesch (2009a, 2009b) for more information.

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Question: 100 (continued)

References

Hughes, N and Goesch, T 2009a, *Management of irrigation water storages: carryover rights and capacity sharing*, ABARE report to the National Program for Sustainable Irrigation, Canberra, May.

Hughes, N and Goesch, T 2009b, Capacity sharing in the St George and MacIntyre Brook irrigation schemes in southern Queensland, ABARE research report 09.12, Canberra, June.

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Agriculture, Fisheries and Forestry

Question: 101

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics

and Sciences

Topic: Available Biomass for Electricity Generation

Proof Hansard Page: Written

Senator Colbeck asked:

Can you provide details of what assessments or work has been undertaken by DAFF in relation to the available supply of biomass for electricity generation or any other matters associated with biomass for electricity generation and the opportunities for the agricultural and forestry industries?

Answer:

ABARES, in collaboration with Geoscience Australia, completed an assessment of bioenergy supply in Australia as part of the *Australian Energy Resource Assessment* (AERA) in March 2010. Chapter 12 of the AERA report contains information on all aspects of bioenergy production and use in Australia, including biomass for electricity generation, liquid biofuels and direct burning of biomass for energy. The report also contains an assessment of biomass resource availability in Australia, which was completed by Geoscience Australia.

The AERA report is available on ABARES website, www.abares.gov.au/publications.

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Question: 102

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics

and Sciences

Topic: ABARES Projects in 2010-11

Proof Hansard Page: Written

Senator Colbeck asked:

Can you provide a list of all new research projects, studies, analysis etc commenced since July 1, 2010, including:

- Topic
- Commissioning agency or department
- Status of the project including commencement dates and completion date, or projected completion date
- Allocation of ABARES staffing resources to each project

Answer:

A list of new research projects, studies and analysis, commenced by the Australian Bureau of Agricultural and Resource Economics and Sciences since 1 July 2010 is provided in Attachment A¹.

¹ABARES new research projects, studies and analysis, commenced since 1 July 2010

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Question: 102 (continued)

ATTACHMENT A

ABARES new research projects, studies and analysis, commenced since 1 July 2010

Client	Topic	Start Date	Anticipated completion date	FTE
ABARES - Invasive Species	Wild dog and fox management. Sheep and cattle producer landholders survey	8/11/10	10/12/2010	0.36
AusAID	Public Sector Linkages Program - ASEAN Trade Policy Modelling (To build capacity to undertake analysis of agricultural trade liberalisition and interpret simulation results to inform trade policy making in selected ASEAN countries	26/11/10	15/02/2012	0.6
Australian Competition and Consumer Commission - ACCC	Survey of Irrigators in the Murray Darling Basin about water market intermediaries - Collection	1/9/10	30/11/2010	0.1
Australian Competition and Consumer Commission - ACCC	Survey of Irrigators in the Murray Darling Basin about water market intermediaries - Analysis	1/11/10	30/12/2010	0.1
Caring for our Country - ABARES - Invasive Species	Returns on investment in wild dog management	20/12/10	30/06/2011	1.26
CSIRO	Economic indicators for data poor fisheries (Quantitatively defining proxies for biological and economic reference points in data poor and data limited fisheries)	1/12/10	30/06/2012	0.3
DAFF - Appropriation	WTO market access flexibilities: implications for Australia	1/7/10	30/06/2011	1.3
DAFF - Appropriation	Future directions of EU agricultural policies	1/7/10	30/06/2011	0.9
DAFF - Appropriation	Australia-North East Asia Agricultural Trade	1/7/10	30/06/2011	0.7

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DAFF - Appropriation	2012 US farm bill (To provide analysis of options for reform of US	1/7/10	30/06/2011	0.3
	farm programs)			
DAFF - Appropriation	Scientific Advice to Support Invasive Species Management	1/7/10	30/06/2011	2
DAFF - Appropriation	Innovation for Agricultural Productivity (To provide scientific	1/7/10	30/06/2011	1.6
	advice and data to DAFF and ABARES Executive and the Minister,			
	and to undertake research on innovative technologies to support			
	DAFF policies and programs, especially on food security)			
DAFF - Appropriation	Analyses of the role and extent of climate and weather effects on	1/7/10	30/06/2011	1.52
	broadacre farm productivity			
DAFF - Appropriation	Farm productivity research and briefing	1/7/10	30/03/2011	1.01
DAFF - Appropriation	Looking beyond the farm gate: value chain constraints to farm	1/7/10	30/06/2011	0.61
	productivity growth			
DAFF - Appropriation	Cost effective acquisition of environmental flows (To identify the	1/7/10	30/06/2011	1.37
	potential to reduce the costs (in terms of reduced irrigated activity)			
	of achieving new environmental watering requirements using			
	engineering solutions rather than more traditional methods)			
DAFF - Appropriation	Improving the intertemporal management of water, through refined	1/7/10	30/06/2011	0.91
	water property rights			
DAFF - Appropriation	Policy and integrated research for engaging rural Australians	1/7/10	30/06/2011	3.7
DAFF - Appropriation	Land use change model and database development, and applications	1/7/10	30/06/2011	0.9
	to issues relating to land-use and food-production and related			
	policies			
DAFF - Appropriation	Capacity building for farm-level economic analysis	1/7/10	30/06/2011	1.7
DAFF - Appropriation	Landscape scale analysis of revegetation incentives and trade-offs	1/7/10	30/06/2011	0.3

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DAFF - Appropriation	EPBC Act advice (To provide a technical/science basis to enhance DAFF's capacity to comment and produce submissions on EPBC and related matters where they overlap with portfolio interests in agriculture and forestry)	1/7/10	30/06/2011	0.5
DAFF - Appropriation	The economics of emissions mitigation options for agriculture	1/7/10	30/06/2011	0.6
DAFF - Appropriation	Climate change impacts and adaptation (To enhance the understanding of the impacts of climate change on agriculture so as to develop cost effective adaptation strategies)	1/7/10	30/06/2011	0.5
DAFF - Appropriation	Food security analysis - Information and analysis to support development of DAFF input to National Food Plan	1/11/10	ongoing	0.15
DAFF - Australian Plague Locust Commission	Cost -benefit analysis of 2010 locust outbreak	2/12/10	30/03/2011	0.21
DAFF - Biosecurity Services Group	Invasive Marine Species Program risk return - Compile materials relating to risk that are held by the IMSP.	18/8/10	15/09/2010	0.07
DAFF - Biosecurity Services Group	IMSP National System Support - (Support the implementation of two elements of the National System for the Prevention and Management of Marine Pest Incursions: National Monitoring Strategy and the National Introduced Marine Pest Information System (NIMPIS))	11/1/11	30/06/2011	0.2
DAFF - Biosecurity Services Group	Aquatic Risk Return Phase 2 - Assist the marine and aquatic sections within BSG – Animal Division to quantify, collate, summarise and analyse information on the aquatic biosecurity risks, impacts if risk are realised, and management, to feed into a broader quantitative analysis of biosecurity risks, impacts and their management	14/1/11	31/03/2011	0.5

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DAFF - Biosecurity	Establish a core national capacity to undertake benefit-cost analysis	1/7/10	30/06/2011	4.9
Services Group	of pest and disease incursions			
DAFF - Biosecurity	Economic input to the IRA on the import of beef and beef products	1/10/10	30/01/2011	0.15
Services Group	from the US and Canada			
DAFF - Biosecurity	Engaging in Biosecurity Phase Four - Develop regional scenarios	1/8/10	30/06/2011	1.61
Services Group - OCPPO	for plant biosecurity futures and Evaluate reporting mechanisms for passive surveillance			
DAFF - Climate Change	Livestock numbers in Exceptional Circumstances regions - To	1/10/10	30/11/2010	0.08
Division	establish EC region level estimates for numbers of livestock and stocking rates on farms			
DAFF - Sustainable	A web information portal for National Action Plan for Salinity and	1/3/11	30/06/2011	0.52
Resource Management	Water Quality (NAPSWQ) to clearly communicate to the general			
	public the outcomes of salinity related airborne electromagnetics			
	(AEM) projects undertaken.			
DAFF - Trade & Market	APEC food security technical cooperation report	1/2/11	23/11/2011	0.6
Access Division				
Department of Climate	Modelling of greenhouse gas emissions from the agriculture sector	29/7/10	11/10/2010	0.5
Change & Energy				
Efficiency				
Department of Climate	Intergovernmental panel on climate change fifth assessment report	13.10.10	30/06/2014	0.2
Change & Energy	authors - to attend international author meetings and present			
Efficiency	reports to DCCEE outlining key activities, outcomes, issues and			
	next steps to emerge from the meetings.			

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Dept Resources Energy & Tourism - Work Agreement	EEDP Activity C - Developing comprehensive national estimates of energy consumption by industry	15/9/10	30/06/2011	0.68
2010-11				
Dept Resources Energy &	EEDP Activity G2 - Industrial energy intensity indicators -	15/9/10	30/06/2011	0.2
Tourism - Work Agreement 2010-11	production data quality and analysis - scoping study			
Dept Resources Energy &	AES alignment - Realignment of Australian Energy Statistics	15/9/10	30/06/2011	1.4
Tourism - Work Agreement 2010-11				
Dept Resources Energy &	Australian coal and iron ore infrastructure outlook to 2030	15/11/10	30/06/2011	1.3
Tourism - Work Agreement				
2010-11				
Fisheries Research &	Gamefishing socioeconomics (A regional socioeconomic evaluation	1/9/10	30/11/2011	1.6
Development Corporation	of gamefishing in eastern Australia)			
Fisheries Research &	Improving the management of bycatch: development and testing of	23/9/10	31/12/2011	0.5
Development Corporation	standards for the effective mitigation of bycatch in Commonwealth			
	fisheries			
Food Standards Australia	Food Standards Aust NZ - Australian market for fresh meat &	1/1/11	31/03/2011	0.1
New Zealand	seafood			
Harvey River Restoration	Improving outcomes for Landholders in the South West Peel-	15/2/11	30/04/2011	0.05
Taskforce, Peel Harvey	Harvey Natural Resource Management region - Landholder Survey			
Catchment Council,	2010			
Waroona Landcare Centre				

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Question: 102 (continued)

Inovact Consulting	Assessment of the Productivity & Efficiency and Capacity and Resilience Impacts of the National Water Initiative: Productivity Analysis and Critical Reviews of Assessment Approach and Findings	1/10/10	30/01/2011	0.29
Korean Rural Economic	Review on the use of remote sensing for crop production in Aust.	1/9/10	1/01/2011	0.06
Institute				
Marsden Jacobs Associates	MJA Assess impacts of proposals for MBD Plan - Analysis of the short run impacts of the Basin Plan on irrigated agriculture in the Murray-Darling Basin.	19/1/11	30/06/2011	0.22
National Water Commission	Water trade mapping 09-10	22/10/10	30/2/2011	0.37
Queensland Competition Authority	Issues paper on irrigators capacity to pay bulk water charges	1/7/10	1/01/2011	0.15
Rural Industries Research & Development Corporation	Foreign investment in Australian agriculture - economic impact of foreign investment in Australian agricultural industries and agribusiness.	1/3/11	30/10/2011	0.65

Please note:

- This list does not specify one additional project due to the security classification associated with it.
- This list does not include projects commencing prior to 1 July 2010.

ANSWERS TO QUESTIONS ON NOTICE

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Agriculture, Fisheries and Forestry

Question: 103

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics

and Sciences

Topic: Game Fishing Socio-Economic Research

Proof Hansard Page: Written

Senator Colbeck asked:

1. When will the ABARES socio-economic research on the game fishing sector commissioned by the Department be completed?

2. Will the research be released publicly?

Answer:

- 1. The report is due to be completed by December 2011. The study is funded by the Australian Government and administered by the Fisheries Research and Development Corporation (FRDC).
- 2. The report will be released publicly on the Fisheries Research and Development Corporation and ABARES websites.

ANSWERS TO QUESTIONS ON NOTICE

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Agriculture, Fisheries and Forestry

Question: 104

Division/Agency: ABARES – Australian Bureau of Agricultural and Resource Economics

and Sciences

Topic: Food Commodity Retail Prices

Proof Hansard Page: Written

Senator Colbeck asked:

Does ABARES have data which indicates the break-down on the share of retail price which flows through the various supply chain sectors (eg. retail, processor, farmer) for the major food commodities – meat, dairy, fruit, vegetables etc?

Answer:

ABARES does not have data that provides a break-down in the share of retail price which flows through the various supply chain sectors (eg. retail, processor, farmer) for the major food commodities – meat, dairy, fruit, vegetables etc.

ABARES regularly publishes derived average farm gate returns for a range of agricultural commodities (Table 16 in *Australian Commodities*), retail prices for selected food commodities (Table 4.3 in *Australian Food Statistics*), indicative livestock retail prices (Table 155 in *Australian Commodity Statistics*) and Australian domestic and export grains prices at various locations and ports (Table 7 in *Australian Crop Report*).

ABARES does not have data on processor margins or transport costs, which would be required to calculate a break-down in the share of retail process along the supply chain. Further, caution has to be taken in comparing ABARES average farm gate returns with indicative retail prices; for example in the case of livestock an average livestock saleyard price refers to the whole beast whereas the indicative retail prices are based on a few particular retail cuts of meat.

Copies of the above ABARES publications can be found on our websites. The URLs are:

Australian Commodity Statistics

www.abares.gov.au/publications_remote_content/publication_series/australian_commodity_s tatistics

Australian commodities

www.abares.gov.au/publications_remote_content/publication_series/australian_commodities

Australian Crop

www.abares.gov.au/publications_remote_content/publication_series/australian_crop_report

Australian Food Statistics

www.daff.gov.au/agriculture-food/food/publications/afs

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Agriculture, Fisheries and Forestry

Question: 105

Division/Agency: ABARES – Australian Bureau of Agriculture, Resources, Economics and

Sciences

Topic: Cost of Wheat.

Proof Hansard Page: Written

Senator Nash asked:

Given that December imports were up on November, and that ABARE predicts that extensive rainfall over the summer has degraded the quality of wheat; what dollar effect could this have on the industry?

Answer:

- Australia has not imported significant quantities of wheat recently (based on wheat exports and monthly exports data published by Australian Bureau of Agriculture, Resources, Economics and Sciences (ABARES) and the Australian Bureau of Statistics).
- ABARES reduced the forecast value of wheat exports in 2010-11 in its December issue of *Australian commodities* by around \$480 million up to that point due to damage caused by excessive rainfall in late November 2010.
- It is estimated the additional losses in winter crop production caused by widespread flooding across eastern Australia in late December 2010 and through January 2011 could amount to around 2.5 million tonnes, or around \$600-700 million.
- Much of the winter crop had been harvested before the flood events commenced and ABARES estimates the crop will reach 42.1 million tonnes. This is 19 per cent larger than the previous crop and the largest since 2003-04.
- Wheat exports are presently experiencing month on month increases, which is normal for the period immediately after harvest and higher export values are also being aided by high world wheat prices.
 - In December, the quantity of wheat exported increased by around 36.2 per cent, the average earnings per tonne increased by around 1.8 per cent and the total value of wheat exports increased by around 38.7 per cent, compared with the previous month.
 - In January 2011, the quantity of wheat exported increased by around 40.9 per cent, the average earnings per tonne increased by around 0.9 per cent and the total value of wheat exports increased by around 42.1 per cent, compared with the previous month.

ANSWERS TO QUESTIONS ON NOTICE

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Question: 106

Division/Agency: ABARES – Australian Bureau of Agriculture, Resources, Economics and

Sciences

Topic: Murray-Darling Basin Authority

Proof Hansard Page: Written

Senator Nash asked:

With regard to Written Question on Notice ABARE-BRS 01 from May 2010, has the agency received a response from the Murray Darling Basin Authority?

Answer:

The Murray-Darling Basin Authority (MDBA) released the report 'Developing the *Guide to the Proposed Basin Plan*: Peer Review Reports' online in January 2011. The report includes a summary of issues raised by reviewers of the ABARES economic analysis of the socioeconomic impacts of the proposed Basin Plan and the subsequent work undertaken by ABARES to address those issues (pages 18-21). The individual peer reviews are presented in appendix G.

The report can be viewed from www.mdba.gov.au/files/bp-kid/1556-Final-Peer-Review-book.pdf.