

FWPA/Industry and ABARES Draft Work Program 2018 to 2021

Background

The FWPA Statistics and Economics program is focused on improving the information available to industry and wider stakeholders in 4 key activity areas and is summarised below:

Issues Summary	
1. Information to support/improve commercial operations	a. Production Measures ○ Harvesting/Log Deliveries ○ Mill Production ○ Inventories b. Trade Measures ○ Imports/Exports c. Market Activity Measures ○ Pricing Trends ○ Product Usage/Consumption forecasts d. Operational Competitiveness
2. Information to support investment decisions	a. Forest Base b. Local and Regional Wood Flows c. Market Trends d. Emerging Products
3. Safety	Establish baseline benchmark safety statistics eg ○ Number of Claims ○ Incidence Rates ○ Frequency Rates ○ Median Time Lost from Work ○ Median Total Compensation Payments
4. Socio-Economic Data	a. Employment (Regional, State) b. Industry Value Add

To improve information in these areas the FWPA is working with industry to aggregate data through a confidential on-line platform on critical sales and productivity metrics. The data aggregation program provides information back to contributing companies as well as higher level data for industry and the general public.

This complements work at the national level which is undertaken by ABARES. For instance, the Australian Wood Product Statistics are published every 6 months by ABARES and provide the statistical benchmark for industry activity. In addition ABARES undertake important industry projects such as the annual Gross Value of Production survey which determines the annual quantity, value and grade of logs harvested. Other activities include the national plantation inventory and periodic mill surveys. This range of work means ABARES has strengths in data gathering, analysis and modelling.

In recent years to take advantage of those strengths the FWPA has entered into a contract with ABARES to continue to deliver projects of value to industry. This covers a contribution to ABARES “business as usual” activities which supports industry and government decision making. In addition funding has been provided for additional projects of specific benefit to industry.

To consider projects to be included in a new contract between ABARES and the FWPA on behalf of industry a draft work plan has been developed.

The FWPA is keen to seek industry comment on the draft work plan and also identify whether there are any other higher priority projects which should be considered.

Finally, this process has also identified several projects which may be of value to industry but at this stage are outside ABARES core scope. So rather than being considered as part of the contracted ABARES work program these projects could be undertaken directly by the FWPA Statistics and Economics program. Industry comment is therefore sought on the merits of these projects which are separately listed.

Draft Work Plan

1. Wood products statistics and modelling

1.1 Biannual Australian Forest and Wood Products Statistics and monthly trade data provision (\$350,000 incl. GST)

In 2015 FWPA and ABARES commenced a joint project that builds on existing data collection and reporting processes for the ABARES twice-yearly publication, Australian forest and wood product statistics (AFWPS). This project was designed to fill information gaps in the Australian forestry industry by providing new information and improving the reliability of existing information.

Continuation of this work will ensure stakeholders have access to domestic production and trade data relevant to the forestry sector every six months (six publications over the 3 year contract period). To complement these publications, ABARES can provide monthly export and import data for publication on FWPA's data dashboard.

1.2 Accelerated Release of Log and Production Data (\$40,000 incl. GST)

To enhance the timeliness of the data available to all stakeholders a project will be undertaken to accelerate the availability of data for Logs Harvested and other production activities. The intention will be to bring forward by one publication cycle (6 months) the availability of the annual data set. This is likely to be in provisional form with the final data in the next issue.

1.3 Quarterly forecasts of selected wood product sales (\$60,000 incl. GST)

ABARES has expertise in economic modelling and forecasting. ABARES developed short-term demand forecasts for structural wood products including MGP10, MGP12, H2F and landscaping products as part of the 2015 to 2018 joint work program. The developed ABARES models were published in a technical report in 2016 outlining model specifications, assumptions and forecasts.

Continuation of this work will provide industry with regular quarterly forecasts that assists in short to medium term decision making. As part of this work, ABARES will review the current forecast models performance against actual sales and if required will update the existing

models to improve forecasting performance. Four quarter ahead forecast with a short analysis against actual sales will be provided to FWPA as soon as they become available. Over the three year period, this will include 12 four quarter ahead forecasts.

2. Resource Availability and Wood Flows

2.1 Australia's medium term forecast of key export products (\$200,000 incl. GST)

ABARES has significantly developed its econometric modelling and forecasting capability through the current FWPA work program, which includes quarterly forecasting and estimating price elasticities of selected wood products. ABARES will extend these methods to developing short to medium-term forecasting frameworks for Australia's imports and exports of selected wood products. ABARES manages rich trade datasets based on ABS trade statistics, which include long time series of monthly trade data at the 8-digit Australian Harmonized Export Commodity Classification (AHECC) export data and 10-digit Harmonized Tariff Item Statistical Code (HTISC) import data. These long-term, consistent datasets can be used to construct both structural and trend models of wood products trade, which can be used to forecast import and export volumes and prices, in aggregate and by country, and to examine the impact of

key explanatory variables on trade, such as exchange rates and international economic growth. A subset of wood products trade will be examined, based on consultation with FWPA to determine the key commodities and countries to forecast. Deliverables will include the publication of a technical report, which includes a set of forecasts over the next five years on key wood products exports and imports.

2.2 Australia's plantation area and log supply 2020–21 update (\$150,000 incl. GST)

Information on softwood and hardwood plantation areas and log availability from Australia's plantations are required to provide a baseline of national, state and regional statistics that can be used to inform forest policy and industry investment.

The 2020–21 five-yearly plantation area statement and log supply (spatial and tabular), using 2019-20 financial year data, will produce nationally integrated and quality plantations data and information that will enhance sustainability, productivity and international competitiveness of Australian forest industry sectors. Input from plantation growers is essential for developing reliable area statements and forecasts. Collecting updated data from plantation growers is likely to be the most accurate and preferred method for the purpose of log availability forecasts at the aggregated regional and national level. Where possible, it is preferable that growers provide 'un-smoothed' log availability forecasts.

The cost of collating, analysing and reporting on the plantation area and log availability is dependent on the plantation owners or managers providing their data in a timely manner and with a limited requirement to re-supply their data and information. For past spatial and log availability forecasts, ABARES (and previously BRS) required a small number of companies to re-supply their data as it was inconsistent with ABARES modelled data used for validating the data provided.

The 2020–21 spatial analysis will include some additional information. First, the survey will entail further research and analysis to identify plantation areas that were not transferred as part of areas sold, in particular MIS plantations, where only the more productive or established plantations were part of the sales processes. This will require identifying these plantations and their owners to establish the owners intent and if they are to be included in the updated figures.

By considering the future wood flows from the plantation estate in the context of processing capacity and market demand, a log availability analysis will be able to identify shortages/opportunities. This is important information for industry investment and decision making and also for policy development.

2.3 Private Native Forestry (\$150,000 incl. GST)

A number of hardwood sawmillers have indicated that they are accessing resource from private native forestry. However, no standard data is available on the scale of this sector in supplying logs.

The initial task would be to identify and review current data sources eg NSW EPA permit system, Australian Forest Growers – members sales, hardwood sawmillers log intake. This process should identify any gaps and recommend strategies to address those gaps. Having identified current data sources, strategies to address gaps the final step will be to undertake a survey of the data and draw conclusions on the scale of the sector.

2.4 Regional Fibre Balance (\$200,000 incl. GST)

China has emerged in the past decade as the major market for forest and wood products. This combined with substantial demand from Japan and Korea means the trade outlook for forest and wood products in the region is very strong. Australia is presently exporting record levels of wood chips and logs while other regional suppliers such as New Zealand, Vietnam and Thailand are also supplying a range of products. Suppliers in other regions North America, South America and Europe are also active in supplying this regional market. All of this demand is currently driving strong price growth for exporters.

If this regional activity continues and Australia's domestic demand continues at high levels then some tension between export and local prices for logs may emerge. It will therefore be important to understand the regional fibre balance from a production, Import and Export perspective.

3. Processing Capability

3.1 Measuring and decomposing the total factor productivity of Australian sawmills (\$150,000 incl. GST)

ABARES has expertise with econometric modelling and productivity measurement. As data becomes available from the 2017–18 ABARES wood processor survey, there is an opportunity to measure the current performance of Australian sawmills. A comprehensive productivity and efficiency analysis of the Australian sawmilling industry will provide insight into the relative performance of Australian mills and allow for discussion in relation to economies of scale issues.

The data collected from the 2017–18 wood processor survey is intended to capture the majority of Australia’s wood processing facilities, allowing for the measurement of mill performance with up-to-date information. ABARES also has access to data collected in the 2012–13 wood processor survey, which can be used in conjunction with new data to measure changes in mill performance over time (recovery rates, etc).

Measuring and decomposing the total factor productivity of Australian sawmills will allow for an examination of the factors affecting mill performance. Sawmill productivity will be measured by the ratio of output produced to input used and all surveyed mills will be benchmarked against an estimate of what is technically possible, represented by a frontier. Specific measures of efficiency can also be derived to isolate the effect of various factors within the control of a mill, such as the efficient utilisation of labour, log inputs and the scale of the mill. Factors outside the control of an established mill, such as geographical variations, can also be examined. Productivity and efficiency results generated from a comprehensive analysis will provide government and industry with insights into the current performance characteristics of the industry and potential areas for improvement.

The methodology and results will be published in a technical ABARES report outlining model specifications and assumptions.

Budget Summary

FWPA-ABARES joint work program costings

Project	Cost incl. GST
1.1 Wood products statistics and modelling (Biannual AFWPS and monthly trade data provision)	350,000
1.2 Accelerated Release of Log and Production Data	40,000
1.3 Quarterly forecasts of selected wood product sales	50,000
2.1 Australia’s medium term forecast of key export products	200,000
2.2 Australia’s plantation area and log supply 2020–21 update	150,000
2.3 Private Native Forestry	150,000
2.4 Regional Fibre Balance	200,000
3.1 Measuring and decomposing the total factor productivity of Australian sawmills	150,000
TOTAL	1,290,000
ABARES co-contribution	450,000
FWPA contribution	840,000

Additional Projects – Separate to ABARES Scope

Additional Project 1.

Alterations and Renovations Market

The A&R segment is important as it is understood to use large volumes of timber. However information on the type of timber products and the end use applications remain limited. A sense of the overall size of the segment can be seen in the ABS official data which references A&R in 3 data series. The task would be to understand the public domain data series and reconciling that if possible with other markets assessments. In addition data from the building materials take off project could be assessed to see if any meaningful extrapolation could be undertaken to link with the official data. Deliverable: Scoping study.

Cat 5206.0 National Accounts Table 2 Current Prices

Private ; Gross fixed capital formation - Dwellings - Alterations and additions ;\$ Millions, Seasonally Adjusted A2304053L
March Qtr 2017 \$8.366 billion

Cat 5206.0 National Accounts Table 3 Chain Volume (Real)

Private ; Gross fixed capital formation - Dwellings - Alterations and additions ;\$ Millions, Seasonally Adjusted A2304097R
March Qtr 2017 \$7.866 billion

Cat 8755 Construction Work Done Table 3 Chain Volume (Real)

Value of work done during quarter; Total Sectors ; Alterations and additions including conversions ; Total Residential Seasonally Adjusted ; A83774251V
March Qtr 2017 \$2.1269 billion

Cat 8731 Building Approvals Australia Table 38 Current Prices

Total value of building jobs ; Total Residential ; Alterations and additions including conversions Seasonally Adjusted; A419852T
March Qtr 2017 \$1.974 billion

Cat 8731 Building Approvals Australia Table 78 Chain Volume (Real)

Total value of building jobs; Total Residential ; Alterations and additions including conversions Seasonally Adjusted; A419852T
March Qtr 2017 \$1.916 billion

The definitions of terms associated with the various ABS catalogues provides some insight into coverage and variances between some of the series.

- In the Glossary attached to the Construction Work Done series the variation with the National Accounts is explained as:

However, there are some adjustments to the survey data which are made in the process of compiling these national accounts series. Allowances are made for the value of activity which is out of scope of the Building Activity Survey and the Engineering Construction Survey. Such activity includes work done on projects which fall below the size cut-offs used for the Building Activity survey and also the value of building work done which is undertaken without

obtaining a building permit, either because such a permit is not required or because the requisite permit is not obtained. The national accounts estimates also make allowances for purchases (less sales) of buildings and other structures from (to) the public sector.

For instance in the March Qtr 2017 these variances equated to some \$6 billion.

Additional Project 2.

Sawmill scale analysis to complement ABARES Economic potential for new plantation establishment in Australia report

Economies of scale are an important determinant of costs, profitability and competitiveness of domestic wood processing facilities. Ernst & Young (2016) noted that “many domestic processors lack the economies of scale of our international competitors, resulting in lower log prices and minimal investment in new plantations”. With trade in logs and wood products becoming increasingly important, international competitiveness has significant implications for the future profitability of the domestic forestry sector and plantation investment.

However, with softwood sawlog availability from the current estate constrained (Whittle 2018), the potential for investment in new processing capacity, expansion of the plantation estate, and operation of existing mills are intimately linked.

This is envisaged as a two stage project.

Stage 1 Review of Current International Experience Processing Scale (Sawmilling and Panel Production)

To better understand the importance of scale in maintaining international competitiveness a review of international best practice is required. This will look at the level of resource required and average haul distances from forest areas to processing site plus capital investment.

Stage 2 ABARES FORUM Model

ABARES FORUM framework developed in Whittle (2018) ABARES will examine relationships in more detail. The key outputs of the model will include estimates of the area of new plantation established, investment in new large scale mills and input of existing mills. The report will include a sensitivity analysis with respect to key assumption used in the model, providing insights into potential options for encouraging an upscaling of the domestic processing sector.

Additional Project 3.

Housing Cycle Turning Points

The quarterly forecasts for softwood products in item 1.3 is starting to generate consistent data within the 95% confidence levels. The industry would also benefit from a further analysis of “turning points” in the housing cycle. Conceptually this might involve considering the housing cycle over the past 4 boom and bust cycles to see what the trigger points were. Then see if there was any consistency in cause factors eg household formation rates, interest rates, changes in GDP, increase in unemployment, level of household debt.

This could then be considered in the context of other related public domain data sets such as Cat 8752 Table 78 Residential Value of Work in the Pipeline, Cat 8752 Table 80 Dwelling Units not yet Commenced, relationship between commencements and completions Cat 8752 Table 33 Number of Dwelling Unit Commencements, Cat 8752 Table 37 Number of Dwelling Unit Completions to determine completion rate.

It may then be useful to see if any of these cause factors show up in overseas experience eg the US where the GFC resulted in a massive collapse in housing starts. Then depending on the strength of the data correlations look at the prospects of developing a model.

Additional Project 4.

Channels to Market

Australia's forest's produce a range of log grades which support local processing as well as export activities. The sawn products generated by local processors will include; structural grades, outdoor and landscaping products, packaging and industrial grade products. The value chain starts in the forest and progresses with harvest and haulage, processing and distribution through to the end user.

Often processors are selling their products into the first or second tiers of the distribution chain and are not necessarily directly linked to the end user. For instance an end user segment would be new detached houses and a builder may purchase their timber through a Big Box retailer, Frame and Truss manufacturer, a timber wholesalers or timber reseller. It is these entities in the supply chain who are generally customers of the local processor or timber importer.

Hence responsiveness to market changes or appreciation of "bottlenecks" in the supply chain may be delayed. It would therefore be of value to industry to have a more comprehensive understanding of the sales channels as the products flow from production through to end users.

This would involve developing a detailed understanding of volume of products as they flow through the supply chain as shown in the following schematic:

Products	Customer Channels	End-Use Segments
Framing Outdoor Landscape Decorative Industrial	Big Box Resellers Frame & Truss Pallet & Packaging Wholesalers	New detached houses Mid rise dwellings Multi residential > 8 storey Commercial mid-rise Other non-residential Other manufacturing & Industrial Renovations

Additional Project 5.

Investment Opportunities/Demand for engineered products (such as LVL and CLT)

This project would involve a survey on current demand uses for engineered products such as LVL/CLT or other emerging products. In particular this study would look at:

- the resource base and current raw material processing opportunities
- the market opportunities domestic and international
- the processing technologies; and finally
- the production feasibility

Additional Project 6.

Carbon Farming Initiative – Review of Carbon Markets

The Carbon Farming Initiative has operating for some time. Initially the program did not include forestry but recent work has seen the acceptance of a methodology for forestry. This project would look at the Australian and International markets and recent pricing trends.

Conclusion

The FWPA is seeking feedback on the projects contained in the proposed draft work program plus the additional projects which could be undertaken directly by the FWPA.

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