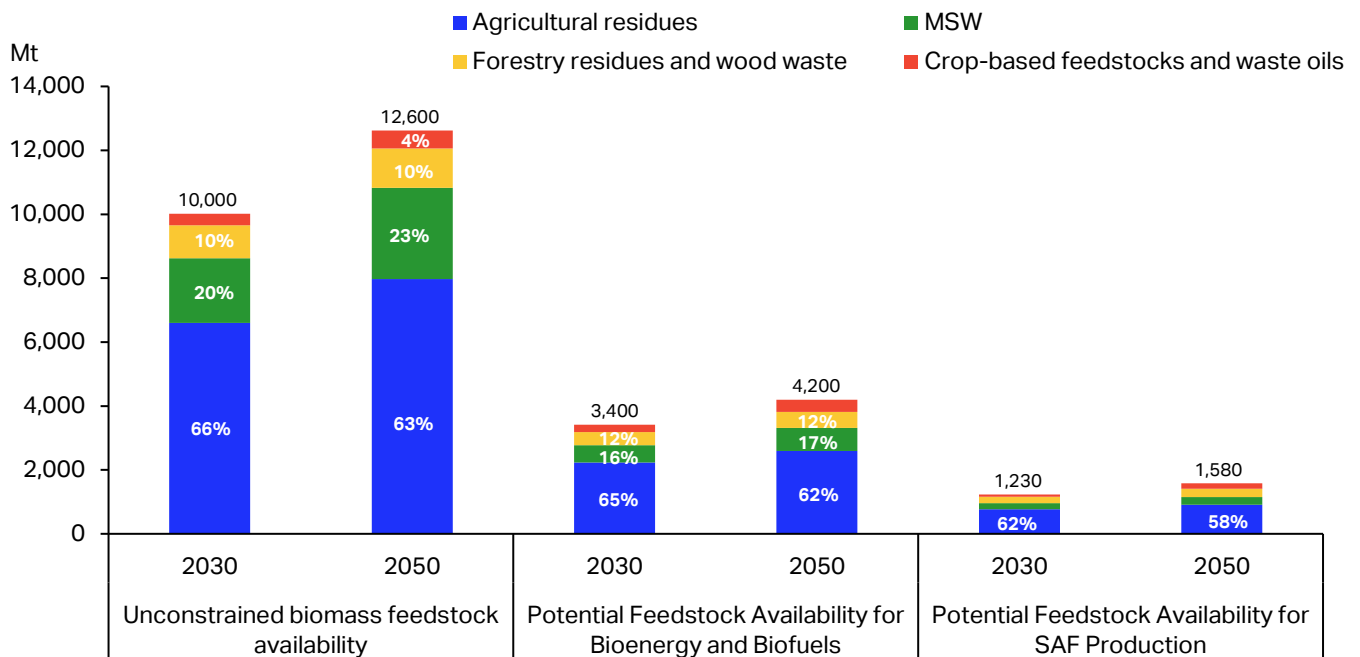


## Chart of the Week

19 September 2025

### Biomass feedstocks are the key to SAF scale-up

#### Potential availability of global biomass feedstocks for SAF production by 2050



Source: IATA Sustainability and Economics, Worley Consulting

- Global biomass feedstocks are expected to be the key resource for sustainable aviation fuel (SAF) production through 2050. Although overall biomass availability is substantial, only a limited share can realistically be harnessed for SAF, as per an [IATA and Worley Consulting study](#).
- Unconstrained feedstock availability exceeds 12,000 Mt by 2050. After allocations to other sectors, the availability for bioenergy and biofuels falls to 4,200 Mt. Further applications, including power, heat, and biochemicals, reduce availability to 1,580 Mt for SAF production, though this is up nearly 30% from 2030. Agricultural residues remain the main feedstock source in 2050, while forestry residues and municipal solid waste (MSW) provide smaller but similar shares. Crop-based feedstocks and waste oils have the lowest share in 2050, while currently, these are the only major feedstocks used in commercial biofuel production.
- The feedstocks available for SAF translate into more than 300 Mt of bio-SAF in 2050. If conversion efficiencies were to improve further, this figure could increase. Additional output gains can come from accelerating SAF technology rollout, improving feedstock logistics, and better infrastructure. Novel sources such as energy crops can help scale as well (excluded from the study). E-SAF will also be important if the air transport industry is to reach the 500 Mt SAF needed to achieve the 2050 net zero target.
- Cross-sectoral collaboration and policy support are necessary to overcome bottlenecks and enable the development, certification, and deployment of new feedstocks and technologies. These measures will benefit multiple sectors, but must ensure that limited resources are prioritized for sectors with few alternative means to decarbonize, such as air transport.

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