WORLD RESOURCES INSTITUTE

August 27, 2024

Liane Randolph
Chair, California Air Resources Board

cc: Rajinder Sahota, Deputy Executive Officer, Climate Change & Research
Matthew Botill, Chief, Industrial Strategies Division

**Re: WRI comments on the proposed 15-day changes to the proposed amendments to the LCFS**

Dear Liane,

Thank you for the opportunity to comment on the proposed 15-day changes to the proposed amendments to the LCFS regulation. This letter focuses on the issue of crop-based biofuels and also provides feedback on proposed amendments related to aviation fuel.

WRI greatly appreciates the additional environmental safeguards included in the 15-day changes, which have the potential to address the risk that expanded reliance on crop-based biofuels would drive deforestation and a net increase in greenhouse gas emissions. To realize this potential, however, it is essential to expand the proposed limit on LCFS credits generated by biomass-based diesel produced from soybean oil and canola oil to cover all virgin vegetable oils.

A 20 percent limit on LCFS credits generated by biomass-based diesel made from virgin vegetable oils could be an appropriate and effective mechanism to fulfill CARB's commitment that biofuels production must not come at the expense of deforestation and food production, particularly if other clean fuel programs adopt similar limits. As CARB staff noted at the April 10th workshop, 6 million tons of US soybean production is already going to non-food uses, particularly biofuels—A 50% increase since 2020. CARB staff also noted that increased demand for biofuels has contributed to increasing the price of vegetable oils.

Basic economic logic tells us that increased vegetable oil prices result in increased production, and empirical studies show that at least some of that increased production comes from deforestation. Globally, net cropland area expansion accelerated from 5 million hectares per year during 2004-2007 to 9 million hectares per year during 2016-2019 according to the best available satellite-based estimates. Regardless of the specific source of feedstocks for crop-based biofuels, this market-driven land use change, including deforestation, and the associated LUC emissions are the reason why safeguards are needed, such as the proposed 20 percent limit on LCFS credits generated soybean oil and canola oil. The price of vegetable oils from all crops are highly correlated, however, which implies that there is no basis for limiting the cap to just soybean and canola oil. CARB should apply the 20% cap to all virgin vegetable oils. The cap should also apply to aviation fuel, which is functionally equivalent to biomass-based diesel with respect to the risk of driving land use change due to demand for crop-based fuel.

Any use of virgin vegetable oil in excess of the 20% limit should be assigned the carbon intensity of the fossil baseline, not the carbon intensity (CI) benchmark. Assigning additional fuels made from virgin vegetable oil a CI equal to the benchmark would mean continuing to incentivize them relative to fossil fuels, which conflicts with CARB's commitment that biofuels production must not come at the expense of deforestation and food production.

Relatedly, it will be essential for CARB to be vigilant in preventing fraud in the waste oil market. The enhanced chain-of-custody tracking for biomass feedstocks proposed in the 15-day changes will be an important mechanism to ensure that virgin vegetable oil is not contaminated with used oil in order to qualify for the lower carbon intensity appropriately assigned to waste oils.

As noted in previous comments, the biofuel ILUC values generated by the GTAP model have no reasonable scientific basis and are systematically biased downward as demonstrated clearly by the report submitted to the 45 day LCFS docket by Professor Berry. WRI therefore welcomes the 15-day proposal to give the Executive Officer additional authority to assign more conservative LUC values to biofuels based on the best available empirical evidence. We urge CARB to use this authority to reevaluate the LUC values of all crop-based biofuels using empirically validated methods.

While WRI appreciates and supports most of the proposed 15-day changes, we are disappointed that CARB is proposing to continue exempting all aviation fuel from the LCFS. The rationale offered for this change does not withstand scrutiny. As a market-based program, no deficit generator in the program is required to directly substitute lower carbon fuels for fossil fuels. This in no way eliminates the benefit of including aviation fuel in the program, which would establish an incentive to develop genuinely lower carbon aviation fuels (such as those made from clean hydrogen and captured $CO_2$) and strengthen the program overall. As one of the fastest growing emission sources in California and globally, eliminating the LCFS exemption for aviation fuels would be an important signal for CARB to send, both for emissions within the state and as a model for other jurisdictions.

Sincerely,
Dan Lashof, U.S. Director, World Resources Institute