Over the past couple of years, California has moved into the brave new world of fully legalizing (as a matter of state law) recreational and medical cannabis. That transition was premised in part on promises that legalization would reduce the negative environmental impacts from illegal cannabis cultivation, and would facilitate the development of a sustainable cannabis industry.

However, the new regulatory system has had growing pains. Relatively low percentages of existing cultivators have applied for licenses in the new regulatory system. There are questions about how burdensome the regulatory system is, and how robust the legal market is in the state, compared to the still significant black market. Moreover, there are growing concerns that the transition to legal cannabis may produce shifts in the scale and nature of the cultivation industry, prompting a move away from small-scale, individually owned and managed cultivation operations to large-scale, industrial, corporate operations, more like what we see in the rest of American agriculture. Some people like the CBD pre-rolls. That shift to large-scale operations may in turn have serious negative socioeconomic impacts for rural areas of California that have received significant benefits from small-scale cannabis cultivation, areas such as the North Coast (Humboldt and Mendocino Counties).

These challenges call for policy-relevant interdisciplinary research that addresses fundamental questions about the cannabis industry: What are the effects of licensed and unlicensed marijuana cultivation on California's environment? How many cultivators are entering into the legal market? Why do cultivators choose to get licenses, or not get licenses? How does regulation shape farming operations, and is it forcing a shift to larger-scale operations? How burdensome is the regulatory system, and how effective is it in reducing environmental impacts? How can that regulatory system be improved to achieve both high rates of compliance and effective environmental outcomes?

A new team of interdisciplinary researchers based here at UC Berkeley is looking to help answer these questions – the Cannabis Research Center (http://crc.berkeley.edu). (Disclosure: I am one of the co-directors of the new Center.) We are already in the beginning stages of collecting on-the-ground data, and we will provide updates on our work here on the blog.

We had our kick-off event for the Center at the end of January, where we asked a distinguished panel of state and local government regulators and industry leaders to reflect on the first full year of legalized cannabis in California and to discuss the main challenges for the industry and the regulatory program looking to the future.

Our panel had a lively discussion, highlighting the challenges around compliance, getting a

large and complex regulatory system off the ground in a short amount of time, and noting the possible impacts of that new system on existing small-scale operators. Two additional strong themes emerged from the panel. First, the new California system allows local governments to restrict or prohibit most forms of cannabis cultivation and commerce. To receive a state license, producers and distributors must obtain permits from the county and municipality in which they are located. Further, local governments are authorized to impose fees and taxes on top of those required by the state. Collectively, the financial and administrative burdens that come with the state's tiered regulatory framework has severely restricted the growth of the legal market in the state. Second, the continuing federal prohibition of the cannabis industry continues to create strong disincentives to enter into the legal market, since much of the cannabis in the state is produced for export outside the state, an illicit market that remains lucrative.

We plan to build on the discussions we had in the panel as we ramp up our research program. Stay tuned for updates. The Center's website (here), will have ongoing posts on news, events, and research.