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Creating Opportunity and Justice with Regenerative Cannabis:

A Challenge to New York



NY Small Farma Ltd.

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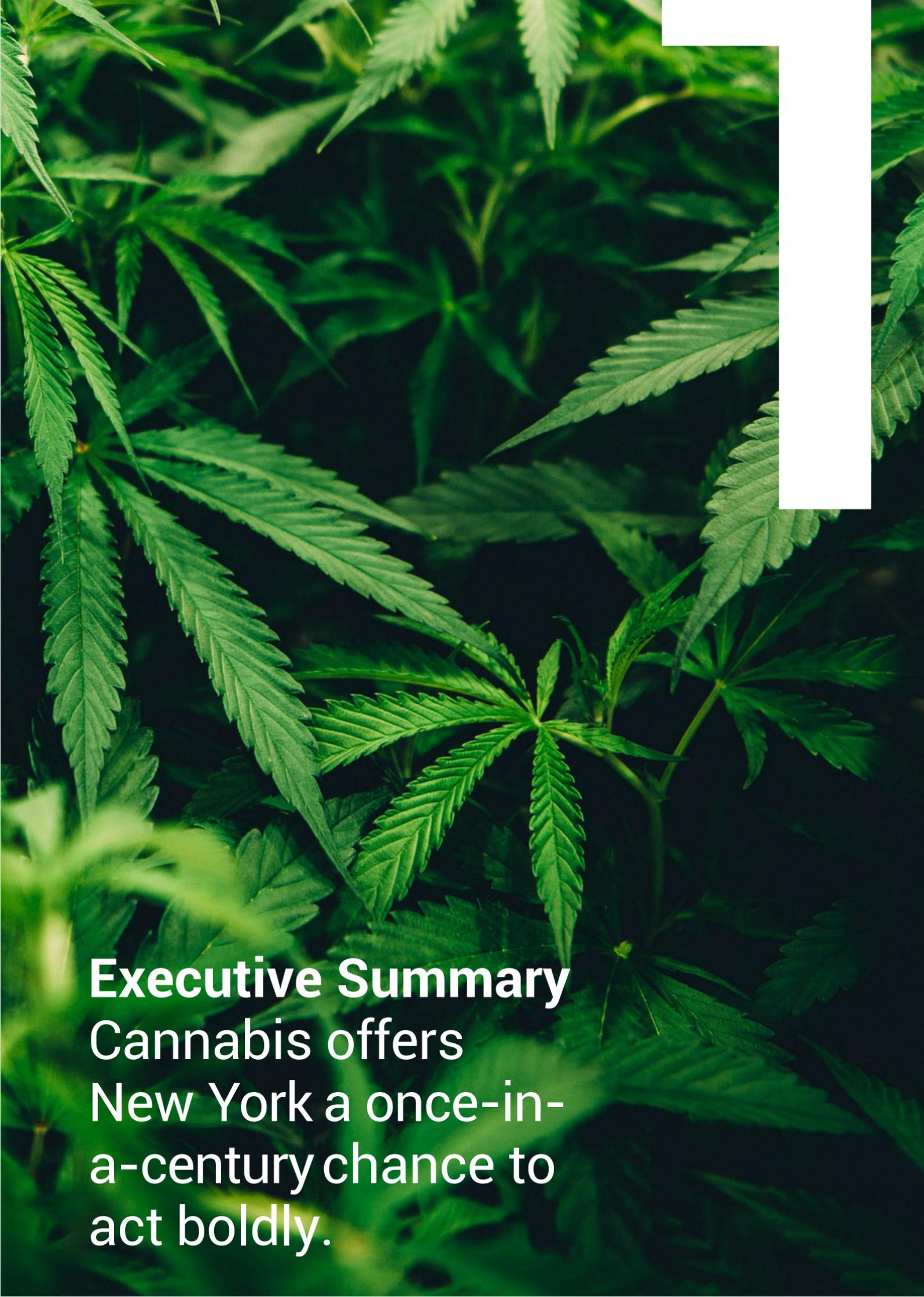
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This paper describes the vast opportunities presented by New York's changing adult-use cannabis laws and the policy choices that will create success.

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education@nysmallfarma.org



Executive Summary
Cannabis offers
New York a once-in-
a-century chance to
act boldly.

Executive Summary

"We are the opening verse of the opening page of the chapter of endless possibilities."
-- Rudyard Kipling, Writer, Poet, Journalist

Cannabis marks the birth of a new industry in New York, offering a once-in-a-century chance to act boldly and create prosperity statewide.

The people of our state deserve to share in the opportunity of the cannabis economy. New Yorkers are estimated to spend over \$3 billion for cannabis annually.¹ While this could generate taxes of \$300-\$700 million, cannabis can and should deliver much more.²

The total economic output of a small, craft micro business cannabis industry can well exceed \$8 billion annually due to the "multiplier effect" that

estimates the wider-reaching economic impacts of industrial activity in related industries such as advertising, tourism, accounting, construction and others.³

The Call for Small: Local, independent, small businesses create wealth and resilient rural-urban supply chains. A cannabis industry that is predominantly small, cottage and micro businesses will keep the cannabis billions in New York's communities. Small businesses have local economic impacts, unlike industrial-scale operations, whose profits are often redirected elsewhere.⁴

Cannabis can deliver much more than the \$300-\$700 million annual taxes estimated from the \$3+ billion New Yorkers spend for cannabis each year.³



Just as with New York's successful farm breweries and wineries, the derivative impact (or "total economic output") from small community cannabis related businesses will be multiple times the projected \$3.5 billion spent by consumers, well exceeding estimates of \$8 billion annually.⁵ Ordinary New Yorkers should be able to establish a micro-farm, run a retail shop or establish a neighborhood craft lounge, analogous to a craft beer bar.

Small farmers and craft businesses can best meet the demand for the artisanal cannabis that New Yorkers have become accustomed to, albeit illegally. The state can be a leader creating a superior state brand. Multiple cannabis supply chains that connect agricultural areas to urban micro businesses will also be more resilient than centralized systems. Today, the need for robust supply chains cannot be overstated.

Cannabis can help reshape our communities and social systems, generating hope for the future and creating a renaissance for people statewide, from the rural farmer with a plot alongside the rest of the crops to the urban entrepreneur seeking to carve

out a niche market. The huge success of craft alcohol should embolden leaders to think big.⁶

A concentrated industry dominated by large multi-state operators reduces potential tax revenue, limits derivative businesses and shrinks total jobs.⁷

Locally-owned small and micro businesses recirculate far more money into local economies and are far more resilient than a highly concentrated industry. Large operator dominance also means that most of the cannabis billions will go to out-of-state shareholders. New Yorkers deserve those billions.

Into the Light: Start with the literal ground, with small farmers growing cannabis regeneratively, outdoors, without harmful synthetic chemicals. The health of people and our planet should be the priority for our leaders. New York should create a healthy, clean cannabis industry from the start, setting a new standard of excellence.

Industrial indoor cultivation is one of the most energy intensive industries in the country, dumping massive amounts of greenhouse gas emissions into our air, with energy use so excessive it will

The total economic output from a small community business industry will be multiple times the projected \$3+ billion New Yorkers spend on cannabis, exceeding \$8 billion annually.



nullify the state's commitment to reduce carbon emissions 85% by 2050.⁸ It should not be allowed or encouraged. Regenerative farming practices, in stark contrast, directly address the climate crisis by sequestering carbon and eschewing contaminating synthetic chemicals that threaten our health. Regenerative outdoor growing should receive substantially preferential tax treatment, strongly incentivizing its use.

Grow Justice. The only path to sustainable social fairness and racial justice is to create and expand economic opportunity to accompany cannabis tax dollars. Today, people of color and women are only a tiny fraction of the current legal cannabis industry, in large part due to structural discrimination and high entry barriers.⁹ Legal cannabis can offer those who have been targeted, marginalized and excluded a meaningful chance to build ownership, financial prosperity and generational hope.¹⁰

While some states have tried, no state in the nation has yet created redress through sustainable economic opportunities for those who have historically been disproportionately harmed by the war on drugs or shut out due to discrimination. Small, cottage and microbusinesses create a viable path forward.

We challenge our leaders to create a law that prioritizes the need of New Yorkers. Structuring cannabis as a small, craft micro business industry, grounded in regenerative practices, will tackle our serious economic challenges, climate change, and social injustices head-on.

Cannabis can regenerate our communities and our planet.

Now is the moment to act.



We challenge our leaders to create a law that prioritizes the needs of New Yorkers. Cannabis can regenerate our communities and our planet. Now is the moment to act.

To create cannabis opportunity and justice, NY lawmakers should:

- Create a cannabis industry comprised predominantly of small, craft, and micro licensees, restricting large operator participation in size, number, scope.
- Enact the same provisions for small craft cannabis cultivators as exist for farm craft breweries, including self-distribution, direct sales and on-site consumption, (Alcoholic Beverage Control Law § 51-a).
- Afford unlimited small licenses for social and economic equity applicants, lower entry barriers and expand opportunities with private partnership investment.
- Provide farm-based cooperative licenses for processing, testing, distribution and serving as centers for crop research, seed banks, farmer and consumer education.
- Include zoning immunity for growers in Agricultural Districts and include Cannabis Sativa >.3%THC in the Agriculture and Markets Law.
- Require most cannabis be grown outdoors by small farmers employing regenerative methods, with best practices for a small number of indoor micro craft growers.
- Include all very small farmers (< ½ acre), regardless of county income, as social and economic equity applicants.
- Afford New Yorkers modest home cultivation for adult-use (6 mature female plants).



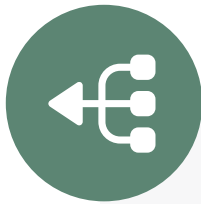
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**The Call for Small:
Local, Independent and
Micro Businesses Create
Community Wealth and
Resiliency**

The Call for Small

The end of cannabis prohibition marks the birth of a new industry and a once-in-a-century opportunity to inject billions of dollars every year into the state economy, distributing the money to New Yorkers statewide.

New Yorkers are estimated to spend up to \$3.5 billion for cannabis annually.¹¹ A decentralized cannabis industry will keep these billions circulating in the state and serve as a springboard for billions more.



The Cannabis Multiplier Effect and Total Economic Output

Creating a cannabis craft micro business industry from the start will generate “total economic output” in excess of current \$8 billion estimates.¹² New Yorkers deserve these billions.

The opportunity of these extra billions in economic benefits from related industries such as advertising, tourism, accounting, construction, and others is enormous, just as we’ve seen with craft alcohol. The NY wine industry generates close to \$13.8 billion in total economic activity above the direct \$5.5 billion and the NY craft beer industry generates an additional \$2 billion over direct sales.¹³ Craft producers also create more and better jobs that put people to work locally.¹⁴

Small businesses distribute their economic impacts to people and businesses closer to home, regenerating communities. With industrial-scale operations, benefits often “leak” outside of where production occurs, with profits commonly redirected elsewhere.¹⁵ Locally-owned small and very small businesses create local wealth, keeping money circulating in communities. Money spent at small local businesses generates almost four times as much economic benefit for the surrounding region as shopping at a big box store due to this “multiplier effect.”¹⁶

Our economy is undergoing a massive shift, accelerated by the pandemic. Small businesses make up 98 percent of New York businesses, employing more than half of New York’s private sector workforce.¹⁷ New small businesses are a significant driver of job creation, especially at start-up.¹⁸ Businesses with few or no employees are growing, with roughly one third owned by minorities and four in ten women-owned.¹⁹ The trend of “solopreneurs” is especially evident in this Covid-19 aftermath.²⁰ These small and micro entrepreneurs should be supported, not left behind.





**BIG CANNABUSINESSES
SQUASHING COMPETITION
FROM SMALL BUSINESSES**



A Concentrated Industry Reduces Tax Revenue and Hurts Consumers

Eliminating small players spreads harm throughout the ecosystem and negatively impacts tax revenues, as has happened in California and other jurisdictions.²¹

The cannabis industry elsewhere is already seeing anticompetitive tactics typical of unchecked market dominance, including below-cost pricing tactics to undercut competitors, only to raise prices once the competition is gone.²² In some states, large cannabis businesses have employed tactics to squeeze, manipulate, and control smaller businesses.²³ Other large operator practices include corporate structures that stack up small licenses²⁴ and take over management control of smaller businesses.²⁵

The only way to create a robustly competitive industry and spread the wealth is to limit business size/scope and license number for large operators and to create avenues for small farmers, cottage and micro businesses to get established and grow.²⁶ New Yorkers want and deserve an industry that they can participate in and benefit from, not another big business boon that leaves most people behind.



Encourage the Rural Urban Connection

Cannabis in New York should be designed to strengthen rural-urban supply chains and invigorate the agricultural sector.³⁰ Cannabis presents an opportunity for revitalization and development, with rural and urban communities synergistically supporting each other.³¹ To this end, New York should enact the same provisions for small craft cannabis cultivators as exist for farm craft breweries, including self-distribution, direct sales and on-site consumption (Alcoholic Beverage Control Law § 51-a).³²

A locally-focused, resilient, regenerative supply chain can connect small farmers with retail shops, craft lounges, and other niche businesses, to meet consumer demands. This new supply chain, with proper traceability and quality-control, will be built from scratch and should be designed so that as much of New York's cannabis as possible comes from small farmers growing healthy cannabis outdoors, regeneratively.



Creating a small industry structure requires specific action

More people and businesses will share the wealth through licenses that are limited in size and scope, inclusion of farm cooperatives at the community or regional level, farm-based businesses analogous to farm breweries, and licensing geared to micro and cottage businesses. Supportive development initiatives will help in the start-up and early stages.

High entry barriers like the need for exorbitant capital and unattainable bonds must be lowered. In states where barriers are low, business participation is high.²⁷ Unlimited licenses should be available for equity applicants, encouraging participation throughout the industry, including small farms, cottage and micro businesses, with lower capital needs. All very small farmers (< ½ acre), regardless of county income, should be designated social and economic equity applicants.

New York also should support venture capital programs focused on co-investments by private sector investors to fund loan participation and guarantee programs, land trusts and programs to enhance business expertise and strengthen peer networks.²⁸

By structuring the industry for independent, small and micro businesses and limiting market concentration by large operators, new generations of entrepreneurs will create competition, expand consumer choices and generate superior products. Economic localization, not centralization, supports long-term, intergenerational relationships and deep community ties.²⁹



Adopt Small Farm Coop Licenses

Small farm cooperative licenses that allow artisanal growers to pool resources will support processing, testing, distribution and serve as centers for crop research, seed banks, and farmer/consumer education. The superior cannabis from small farms should be the foundation for this new industry. As with other "New York Grown" labels,³³ a regulatory certification or label could underscore the artisanal high-quality being delivered, analogous to appellations for grapes and other agricultural products.

3



Into the Light:
Healthy People and
Planet Demand Outdoor
Regenerative Cannabis

Into the Light

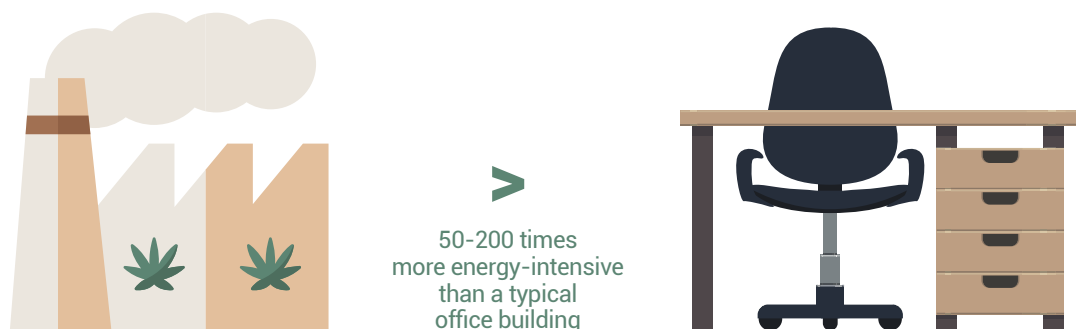
The end of cannabis prohibition should signal the end of indoor cannabis production and the beginning of a way of growing that stops harming and starts protecting people and our planet. All consumers deserve cannabis grown with ecologically responsible and health-supportive methods.³⁴

Cannabis is a crop.

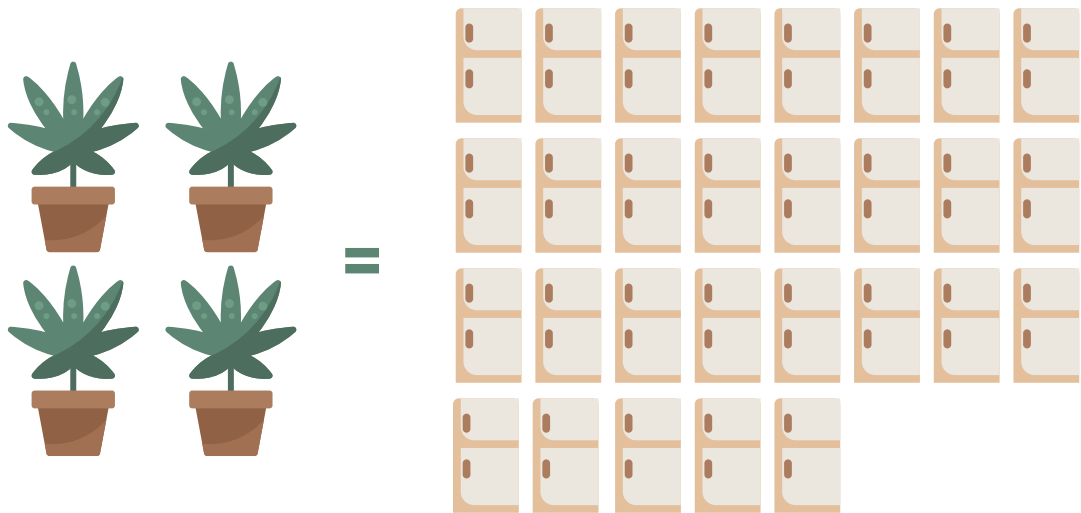
Farmers grow crops. New York is a great farming state. Yet, currently, 100% of legal cannabis in New York is grown indoors.³⁵ Once cannabis is legal, there is no longer a need to hide this plant indoors. There is no more reason to grow this crop inside than there is to grow corn or potatoes indoors. Most farmers in New York can grow enough cannabis in the two outdoor growing seasons the state's climate provides, to supply a year's worth of cannabis. Unlike many fruits and vegetables, cured cannabis can easily be preserved for a year's supply.

To generate these benefits and revitalize agriculture, the right to farm must be recognized. Growers in agricultural districts should be given zoning immunity. Cannabis Sativa >.3%THC should be included in the Agriculture and Markets Law just as was done for hemp (Cannabis Sativa <.3%THC).

Industrial indoor cannabis cultivation is 50-200 times more energy-intensive than a typical office building and will nullify the state's commitment to reduce carbon emissions 85% by 2050.



An indoor grow system for four plants sucks up as much energy as 29 refrigerators running full-time.



Indoor Cannabis Creates Massive Pollution

The industrial indoor cannabis cultivation industry is among the worst of the offending greenhouse gas polluters in the nation.³⁶ Industrial indoor cannabis cultivation is 50-200 times more energy-intensive than a typical office building.³⁷ For context, the energy to produce one cannabis joint is roughly equivalent to the amount needed to produce 18 pints of beer and an indoor grow system for only four plants sucks up as much energy as 29 refrigerators running full-time.³⁸

We're facing the consequences of what has been dubbed "agricultural malpractice."³⁹ A third of the world's farmland has been destroyed in just the past four decades, which is devastating for the earth's climate.⁴⁰ As our soils degrade, they lose the ability to hold their vast reserve of carbon, thus releasing disastrously large amounts of CO2 into our atmosphere.⁴¹ Production of the estimated over 625,000 pounds of adult-use cannabis purchased by New Yorkers per year should not contribute to our climate crisis.⁴²

The New York Climate Leadership and Community Protection Act, signed into law in July 2019, sets a target of 85% greenhouse gas emissions reduction by 2050. This minimal goal will be impossible to meet if large cannabis companies are permitted to grow industrially indoors.⁴⁴

This new industry should not be permitted to add to the environmental crisis we are in. Ultimately, all New York cannabis should be grown outdoors, regeneratively, but for a small portion from urban craft growers using best practices and limited to a small number of plants, employing energy reduction measures.⁴⁵ Those who seek to engage in indoor growing in large-scale operations, if allowed at all, should be subject to substantial tax consequences to incentivize healthy outdoor growing.



Regenerative Farming Helps Reverse Climate Change

The urgency of our deteriorating environment requires a new paradigm: Farming as a means of reversing global warming.⁴⁶ Growing cannabis outdoors while employing regenerative farming practices will both restore the nutrient richness to depleted soils and help reduce the impact of global warming by actively pulling excess carbon out of the atmosphere and sequestering it in the soil.⁴⁷

All regenerative (aka carbon) farming practices contribute to the health of our soil and our planet, including continually growing cover crops to sequester carbon dioxide, growing without tilling, crop diversity and farming without using synthetic chemicals.

A report from the Intergovernmental Panel on Climate Change finds that about 30% of global emissions leading to climate change are attributable to agricultural activities, including pesticide use.⁴⁸ Pesticides also bio-accumulate throughout the food web and run off into our streams, evaporate into our air, precipitate down in our rain, and soak into our soil and water table, directly affecting our health.

Large-scale industrial monoculture cannabis production often depend on synthetic chemicals since it carries increased risks of mites, aphids, gnats, mold, mildew and other diseases.⁴⁹ Large cannabis operations rely on the government not having sufficient resources to catch them using these chemicals, and when they are caught, count on buying their way out with a fine.⁵⁰

Cannabis carries additional health risks for consumers since it is heated: burning can cause decomposition of the chemicals, forming toxic mixtures.⁵¹ For example, myclobutanil, commonly used on cannabis and grapes, while considered safe on grapes, turns into hydrogen cyanide when heated, a compound the CDC classifies as a chemical warfare agent.⁵² Myclobutanil has been used in cannabis in the US and Canada, where sometimes it's discovered and other times it's not.⁵³



Cannabis Packaging and Environmental Health

The need for safe packaging for adult-use cannabis is undisputed. At the same time, we cannot perpetuate the extensive waste and "forever" materials (that do not biodegrade) that are being utilized. Instead, we must strive for sustainability for all cannabis packaging. Hemp itself offers possibilities as do refillable options, already being increasingly deployed for consumer goods.⁵⁴



4

Grow Justice:
Cannabis Justice
Requires Economic
Opportunity

Grow Justice

As New York prepares to lift prohibition of adult-use cannabis, societal injustices must be front and center. For almost 100 years, cannabis has been used to create and perpetuate discrimination against people of color.⁵⁵

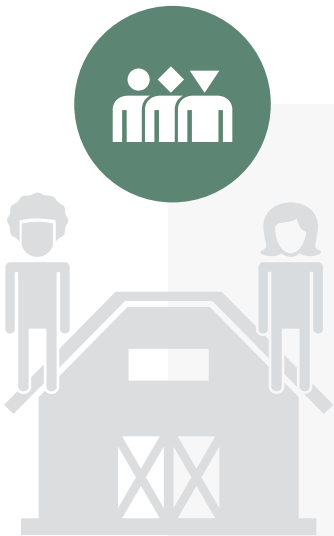
Today, even in post-prohibition America, people of color are effectively excluded from what's been called America's *Whites-Only Weed Boom*.⁵⁶ In states that have adopted legal cannabis systems, structural barriers and the systemic aftershocks of discrimination and exclusion continue to limit access to opportunities and true economic security for minorities and women.⁵⁷ It is also clear that environmental impacts are more detrimental to minorities and those at the bottom of the economic spectrum.⁵⁸

New York must learn from these mistakes, not repeat them.⁵⁹ Starting with those most harmed by the discriminatory enforcement of cannabis prohibition, this new industry must offer hope to as many New Yorkers as possible.



Redress Harms

It is a necessary but not sufficient step to rely on cannabis tax revenues to repair the damage of systemic social and racial injustices. The new cannabis industry should be structured from the start to create widespread opportunity, especially for those disproportionately impacted by the war on drugs. A new cannabis law should not assume large cannabis businesses run by the select few will dominate.⁶⁰



Support Minority, Women-Owned and Micro Businesses

The cannabis industry offers the chance to change the equation for people of color, women and those who have historically been denied a share of society's wealth.⁶¹ Women are especially effective in leveraging their cottage and micro businesses to make massive contributions to economies.⁶²



Tackle Income Inequality

In a survey of 120 major cities, New York is ninth in income inequality worldwide.⁶³ According to a United Nations report, growing income inequality leads to widespread social unrest and increased mortality.⁶⁴ The widening income gap affects minorities and women the most but many are impacted.⁶⁵





Level the Playing Field

A key reason social equity efforts in every state have failed is that large operators have taken over the cannabis industry, leaving no room for small entrepreneurs. Small and micro entrepreneurs cannot compete sustainably against the deep pockets of these entities, who are more likely to produce a lower quality, unsustainable product and have already been shown to act unscrupulously to force out small businesses.⁶⁶

Unlimited small, cottage and micro licenses can achieve that which has eluded other states by spreading the wealth among those who have been historically discriminated against or squeezed out.⁶⁷ Business ownership catalyzes social mobility.⁶⁸ A 2015 Brookings report emphasized, “If our country is to continue to foster economic opportunity, create jobs, and make progress on income and wealth inequality, we ought to help women and individuals from racial and ethnic minority groups start businesses and succeed as entrepreneurs.”⁶⁹



Home Cultivation for Adult-use Promotes Equity

While home cultivation of adult-use may have a modest impact on tax revenue, it significantly aids lower-income and rural access to cannabis and enhances personal sovereignty. New York should be in line with other states that allow limited home cultivation for adult-use. New York should allow adults twenty-one years of age or older to grow and possess no more than six living female cannabis plants, and the cannabis produced by those plants.



5

Conclusion

Conclusion

This time of reckoning holds immense promise since in times of crisis, seemingly impossible ideas suddenly become possible. The Covid-19 pandemic and its economic fallout, the urgent environmental challenges upon us, and the failure of our society to address discrimination and inequality, demand a new approach.

New York Should Favor a Small, Craft, Local Business Industry Small, local businesses should continue to be the backbone of this state, instead of following the big business dominance model. Independent local businesses are the drivers of good, solid jobs. They contribute to community economies and they help create economic justice.

Small, craft and micro businesses will keep the

cannabis billions New Yorkers are spending working for them and bring a wealth of new opportunities to people statewide.

New York Should Lead on Climate and Health

New York should lead the nation and the world in putting an end to the destructive practice of indoor cannabis growing and the use of synthetic chemicals. The price of growing indoors is more than all the billions this plant can produce. It is our planet's future and our health.

New York Should Act Boldly on Social Justice

The state should be a leader in social justice by purposely designing the cannabis industry to be run by ordinary New Yorkers, especially those who have suffered from systemic discrimination in the name of cannabis.

The time is now for New York to rise to the challenge.

6

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²⁷ For example, in Oklahoma's medical cannabis industry, as of December 2020, there were 9,545 active business licenses - 5,970 grower licenses, 1,407 processor licenses, 2,113 dispensary licenses, 24 transportation licenses, 10 waste disposal licenses, and 21 laboratories. These licenses cost only \$2,500 whereas in New York the cost was \$200,000 and a non-refundable application cost of \$10,000 plus required build-out costs in the millions. See <https://oklahoma.gov/omma.html>. See Lepore, R. (2020, August 1). *The Sooner The Better*. Munkey Biz. 22-23

²⁸ *Using Marijuana Revenue to Create Jobs*, <https://www.americanprogress.org/issues/criminal-justice/reports/2019/05/20/470031/using-marijuana-revenue-create-jobs/>; *The legal cannabis industry must reckon with systemic racism*, <https://mashable.com/article/cannabis-weed-systemic-racism-black-lives-matter/>.

²⁹ https://www.kosmosjournal.org/kj_article/what-indigenous-wisdom-can-teach-us-about-economics/.

³⁰ These supply chains serve many functions, especially relevant to cannabis. See, e.g., *Regional Supply Chains: Strengthening Urban-Rural Connections Around the Benefits from Natural Areas*, <https://elischolar.library.yale.edu/cgi/viewcontent.cgi?article=1051&context=fes-pubs>; see also, *Implementing the New Urban Agenda by Strengthening Urban-Rural Linkages*, <https://urbanrurallinkages.files.wordpress.com/2019/08/implementing-the-new-urban-agenda-by-strengthening-urban-rural-linkages.pdf>; *The mutual benefits of promoting rural-urban interdependence through linked ecosystem services*, Tewelde Gebre, Dr. Berhanu Gebremedhin, file:///C:/Users/DN%20Burns/Downloads/1-s2.0-S235198941930143X-main.pdf. To support resiliency and agriculture, all small farmers, regardless of county income, should be deemed equity applicants.

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- ³² *New York Consolidated Laws, Alcoholic Beverage Control Law - ABC § 51-a. Farm brewery license*, <https://codes.findlaw.com/ny/alcoholic-beverage-control-law/abc-sect-51-a.html>.
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