CANNABIS
& SUSTAINABLE DEVELOPMENT

Paving the way for the next decade in
Cannabis and hemp policy

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Introduction.

The reformist trends in *Cannabis* policy globally is an ongoing movement unlikely to be stopped. A deficit of democratic monitoring of the generalization of legal *Cannabis* markets could represent a threat for affected populations and public health. Ethics are needed. A renewed interest and takeover of the topic *Cannabis* by all categories of the population are urgent.

A one-size-fits-all policy seems neither desirable nor possible, both for geographical imperatives and for the diversity of uses and products of the plant. This makes consensual policy models (exportable and generalizable) difficult to emerge.

Rather than trying to solve the equation of the perfect *Cannabis* policy and its infinite variables, a more feasible approach would be to step aside, list all the different public policies that affect, or are involved with *Cannabis*, and address them individually. The 2030 Agenda for Sustainable Development and its 17 Goals is but a perfect tool for this purpose.

This discussion paper highlights important research and experiential outcomes from scholars, civil society organizations, affected populations, and market stakeholders. It seeks to show the potential of the *Cannabis* plant in appropriately regulated settings as transformative for our societies – so long as ethical practices and sustainable approaches are kept central.

This document is not intended to be an exhaustive guide. It is designed as a valuable resource to contribute to post-prohibition studies, and help understand, from diverse public policy perspectives, the links between the policies of *Cannabis* and the Sustainable Development Goals, and the impact of the former on the latter.

NO POVERTY

End poverty in all its forms everywhere.
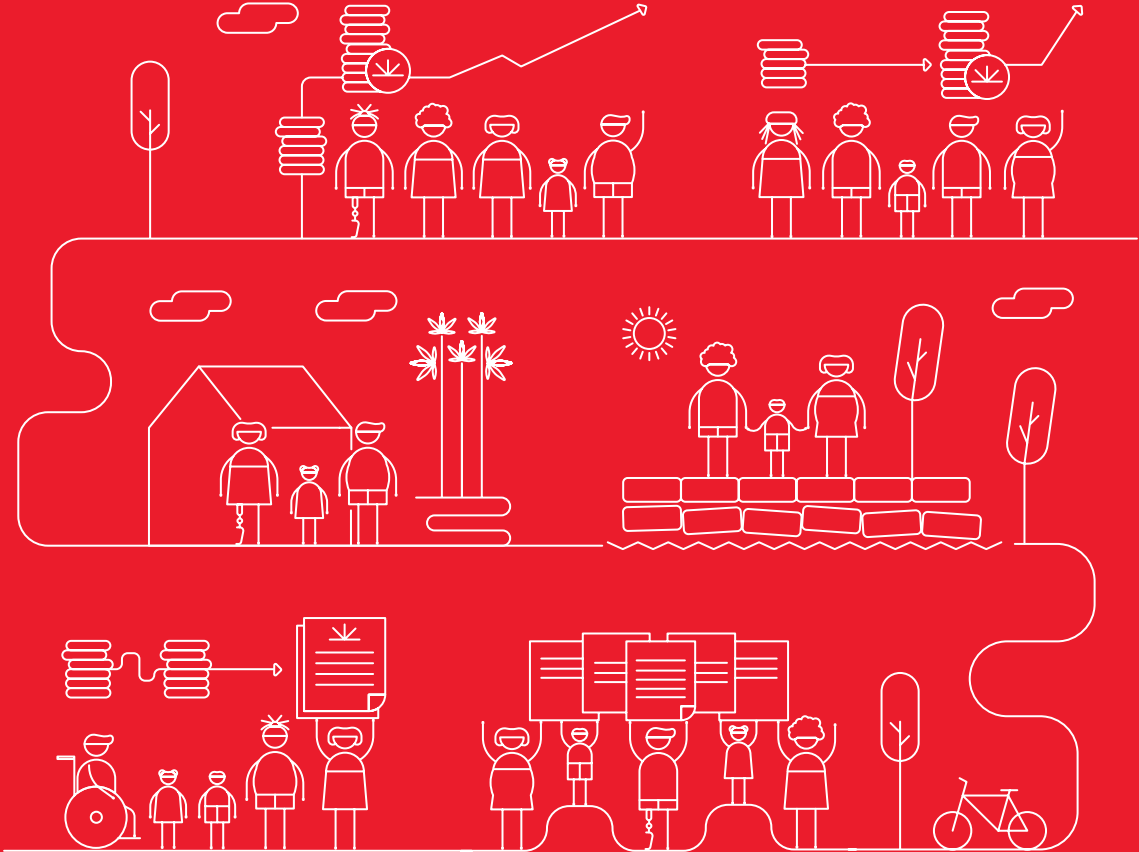
GOAL 1: KEY POINTS & RECOMMENDATIONS

The *Cannabis* market is to a large extent dominated by local cultivation and consumption. Yet, *Cannabis* crops grown mostly by small food producers and family farmers are largely curtailed and exploited by Drug Trafficking Organizations.

There are traditional local implantation of these crops in many regions, and all major illicit *Cannabis*-producing areas are in developing countries. Policies should ensure legal international trade benefits the populations that have been growing *Cannabis* for generations.

Legally regulating psychoactivity-related *Cannabis* are a direct way to economically empower populations living in situations of poverty. Policy reform should target vulnerable populations already involved in illicit *Cannabis*-related activities and prioritize their inclusion in regulated markets.

Reasonable redistribution of the profits: The high number of middlemen between growers and consumers is a characteristic element of illicit *Cannabis* markets – policy reforms should reduce their number, or reduce middlemen's profits compared to those of growers and retailers.

Diversification in the type of *Cannabis* products manufactured (health-related products, food, energy, bioplastics, textile, etc.) should be sought to reduce farmers' vulnerability to market price variations, and contribute to local or self-sufficiency,.

Cannabis and hemp crops regulation programs should be embedded within regional, national, and local agricultural strategies.

Imprisonment often means the removal of a family or community member expected to contribute to the economic stability of the group. Alternatives to prison should be systematized in the case of petty *Cannabis* and drug policy offences.

Criminal records (which stigmatize and undermine the offenders' ability to reintegrate appropriately into society, and collaterally affects labour, family, and education) should be erased.

Crop eradication policies should be urgently discontinued, as they destruct farmers' sole means of survival and push them further into poverty. Related practices such as land seizure, crop fumigations and other indiscriminate mass-eradication methods must be stopped. New policies should repair asset forfeiture, seizure of *Cannabis* farmers' land, and set up procedures of property claim and restitution.

Policy reforms should consider legal *Cannabis* production as an outcome of Alternative Development programs and strategies: Instead of replacing *Cannabis* plants with other crops, AD policies could focus on training and assisting farmers in their transition from illegal to legal *Cannabis* production settings.

It is crucial to proactively preserve the traditions associated with the long-established cultivation of *Cannabis* while granting fair access to international regulated markets.

Implementation of intellectual property protections such as geographic indicators to preserve, enhance, and valorize traditional knowledge and products, and to ensure fair and non-relocatable economic opportunities for the populations concerned, is desirable.
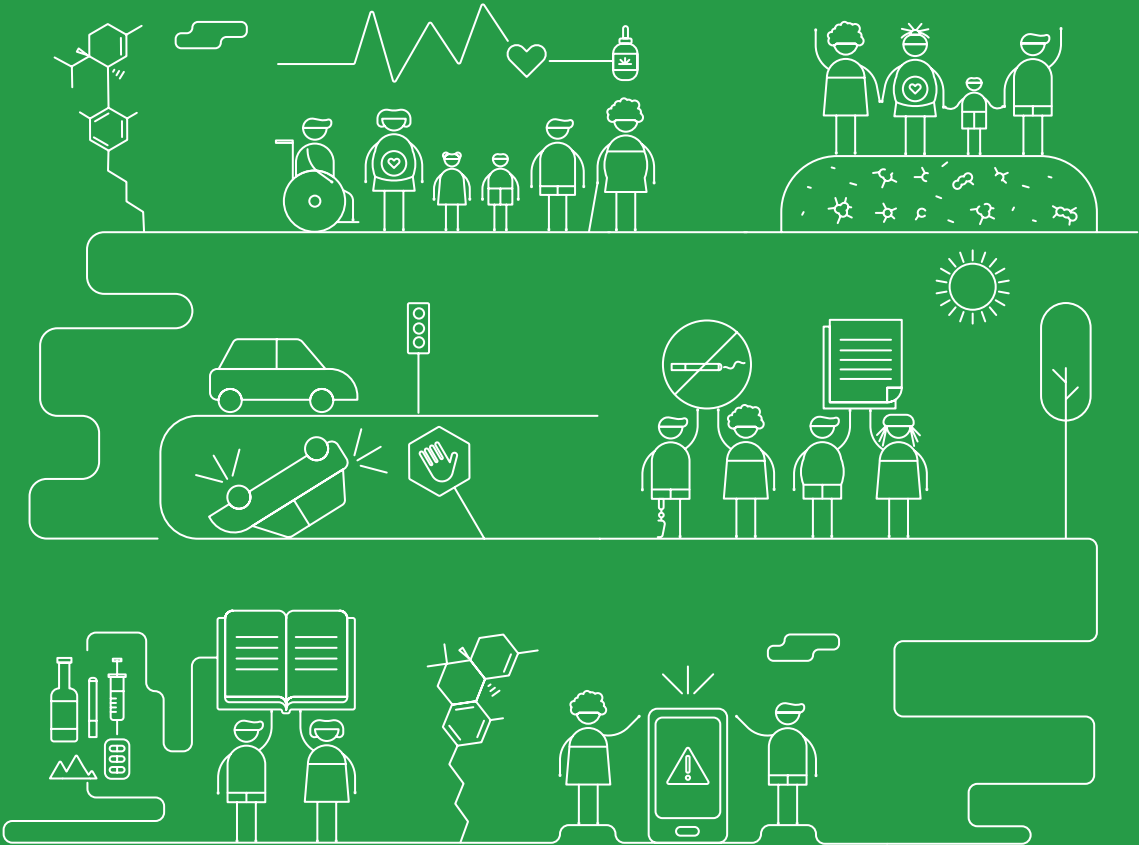
ZERO HUNGER

End hunger, achieve food security and improved nutrition and promote sustainable agriculture.

GOAL 2: KEY POINTS & RECOMMENDATIONS

Centuries of history showed it, and contemporary research demonstrated it: *Cannabis* seeds are a functional valuable and healthy food resource. Besides traditional ways of eating *Cannabis* seeds products, high nutritional value should lead to seed-derived products being considered as important agents in the fight against malnutrition.

Non-psychoactivity related *Cannabis* crops are a perfect candidate to contribute to increased value-added and productivity in agricultural production. For instance, substituting cotton with non psychoactivity-related *Cannabis* crops can increase productivity while drastically reducing water consumption for irrigation.

Local "hemp seed" production for seeds can help securing continued, cheap, equilibrated and essential food supply in impoverished areas.

The high biomass production of *Cannabis* has multiple advantages for to increasing efficiency and income, while reducing costs for farmers (carbon sequestration, weed control, but also recycling of waste and overproduction). Excess of plant biomass can be turned into biochar to fertilize soils, bioplastic materials or biofuel.

Increases focus should be placed on studying the promising mechanisms of the *Cannabis* plant for phytoremediation and cleaning of soils contaminated with hazardous elements.

Countries should firmly implement non psychoactivity-related *Cannabis* policies relying on the total exemption from international drug control measures of the 1961 Single Convention.

Genetic resources and associated traditional knowledge on the *Cannabis* plant are invaluable assets determining the global food security, especially in the context of threats to biodiversity, climate change and the expanding global population. The rich international protections for traditional medicine, knowledge and cultural expressions must urgently apply to legacy *Cannabis* growers communities.

Community-led initiatives to support and preserve genetic diversity, as well as knowledge and know-how regarding the *Cannabis* plant should be publicly supported.

Stakeholder-driven approach to preserve genetic resources and enhance communities' accession to legally regulated markets (such as Appellations of Origin) should be supported and promoted, in particular in peripheral and developing countries.

Laws restricting non psychoactivity-related *Cannabis* cultivation to a list of selected registered "varieties" cause concern over the preservation of, and communities' rights over, genetic resources, practices, and knowledge associated with traditional (unregistered) cultivars/chemovars. It is also a barrier to innovation, research, and development of genetics of interest. Hemp crops should be differentiated from psychoactivity-related crops using the ratio methodology proposed by UNODC.

HEALTH AND WELL-BEING

Ensure healthy lives and promote well-being for all at all ages.

GOAL 3: KEY POINTS & RECOMMENDATIONS

Herbal *Cannabis* and compounded phytocannabinoid pharmaceuticals contribute to the diversity and thoroughness of contemporary medical practitioners' toolkits, in particular facing non-communicable diseases. It is vital to foster independent publicly-funded research.

Promising therapeutic potential has been pointed out, to combat nausea, vomiting, anorexia, cachexia, spasticity, Tourette's syndrome and other movement disorders, inflammatory bowel disease and irritable bowel syndrome, pain, pruritus, glaucoma, some sorts of epilepsy, asthma, sleep disorders, opioid dependency and withdrawal, some psychiatric symptoms, hyperactivity, ADHD, Alzheimer's disease, autoimmune diseases, inflammation and allergies. Healthcare systems should provide immediate compassionate access to patients in these medical conditions, and undertake proper policy regulations to provide safe and legal medical access to a variety of formulations of *Cannabis* and cannabinoids.

Although *Cannabis* use can eventually generate health hazards, overall use disorders rate are relatively low, and serious adverse events are rare. Prevention and education to safe, empowered and sensible consumption patterns and methods are the only tools known for reducing adverse effects and potential harms.

Herbal *Cannabis* should be further explored tools for nicotine cessation strategies, in particular low-THC herbal *Cannabis*, in countries where "joints" commonly include tobacco.

Because prescription herbal *Cannabis* and cannabinoids are always associated with a decrease in the prescription of opioid painkillers, and because the degree of access to *Cannabis* and cannabinoids for medical purposes positively correlates with

a reduction in overall prevalence of opioid use disorders, healthcare systems should consider *Cannabis* as a therapeutic adjunct or complement to opioid prescription treatments – in particular in the context of the "synthetic opioids crisis" – as well as in illicit opioid use substitution therapies.

There is also preliminary evidence supporting beneficial effect of *Cannabis* in benzodiazepine use reduction or alcohol use disorder withdrawal, while it has been shown that high prevalence of *Cannabis* use is statistically associated with low rates of premature deaths. These element should be considered in the design of public health strategies on non-communicable diseases.

Food and food-products made from *Cannabis* seeds are rich in protein, essential amino acids, glutamic acid, and supply the exact ratio of essential fatty acids omega-6 and omega-3 the human body requires. They should be considered, for instance, to replace animal-proteins.

There are real risks related to the presence of impurities and adulterants in herbal *Cannabis*, resin, extracts or other products manufactured in illegal settings. There is urgent need for increased pharmacovigilance, normalization of *Cannabis* product production and testing options (for consumers), efficient share and use of collected data by local health and social workers, and training in harm reduction interventions are necessary.

Driving motor vehicles on the basis of simple presence of cannabinoids should cease to be criminalized. Bioassays must be abandoned, and police forces trained to carry out psychometric tests; administrative sanctions could apply only in the cases of actual impaired driving, on the basis of psychometric tests.

QUALITY EDUCATION

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all.

GOAL 4: KEY POINTS & RECOMMENDATIONS

The barriers to research and the lack of knowledge-sharing that prohibition has resulted in numerous gaps in ethnobotanical, health and safe consumption knowledge, that public policies should seek to promote prevention and education on Cannabis products use that is grounded in evidence-based information, non-judgmental, open to interactive dialogue, meaningfully inclusive, delivered by trained facilitators or peers, that includes harm reduction, and that pays attention to overlapping issues of racism, social justice, and stigma.

Evidence-based and peer-led education and prevention in primary schools is necessary to help young people make smarter, more informed choices on Cannabis products use later on.

Governments should shift public spending on drugs, from law enforcement to health (in particular harm reduction, prevention, and education programs).

The knowledge gap on the professions required to operate in legally regulated Cannabis markets (biosciences, horticultural, agronomics, consumers good fabrication, sales, etc.) should benefit from the financial resources created by Cannabis market regulations, to fund professionals' training, as well as cultural and environmental education.

A way to provide opportunities for youth and adults with efficient, but unrecognized technical and entrepreneurship skills related to Cannabis: funding educational programs that target young adults already involved in illegal Cannabis-related activities (in particular cultivation, processing, and retail) to enhance existing skills while dignifying and preserving traditional knowledge.

GENDER EQUALITY

Achieve gender equality and empower all women and girls.

GOAL 5: KEY POINTS & RECOMMENDATIONS

Decriminalization of petty, non-violent Cannabis-related offences is key to protecting women, that are the focus of criminal prosecution, and systematically face disproportionate penalties, and degradant conditions of incarceration.

Specific criminal justice measures targeting women (e.g., withdrawal of child custody, hampering of the exercise of family rights) must be abolished without delay.

National and local health systems and programmes should pay specific attention to the specificities of female Cannabis use, and gender-specific differences in health prevention, primary care and treatment approaches, as gender conditions are recognized as a problematic barrier in accessing healthcare systems.

The differential impact of the Cannabis-related problems and policies on women calls for the design, development, and implementation of specific frameworks to promote, enforce, and monitor gender equality and non-discrimination. Policies and strategies regarding Cannabis products use & health should adopt woman-specific approaches, and include and consult with women and affected populations at all levels.

Female leadership in the legal Cannabis industry is superior to that of other market sectors, which deserves monitoring and encouragement.

Policies that include asset forfeiture and seizure of a Cannabis farmers' land must be repealed, as they predominantly and disproportionately affect women.

AFFORDABLE AND CLEAN ENERGY

Ensure access to affordable, reliable, sustainable and modern energy for all.

GOAL 7: KEY POINTS & RECOMMENDATIONS

The capacities of Cannabis fibers for both production and storage of energy can help ensure sustainable, reliable, and green energy for all, while decreasing dependency on fossil resources.

Indoor Cannabis cultivation using artificial light, heat, ventilation, humidity systems, automation, and irrigation are fruit of prohibitive policies: legal regulations should seek to incentivize greenhouse or outdoor methods of cultivation that have less detrimental impact on the environment, and have an extremely low carbon footprint.

Market development of carbon nanosheets for electrodes made out from residual wastes of Cannabis plants, that outperform standard graphene-based supercapacitors, should be encouraged.

Incentives to sustainable cultivation patterns should be mainstreamed in Cannabis-related policy reforms, and include tools such as standardization, incentives of professional field-bodies able to edit peer guidelines, limitation of the rate of indoor cultivation authorized per business, or application of a carbon-tax model to indoor Cannabis cultivation facilities.

DECENT WORK AND ECONOMIC GROWTH

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all.
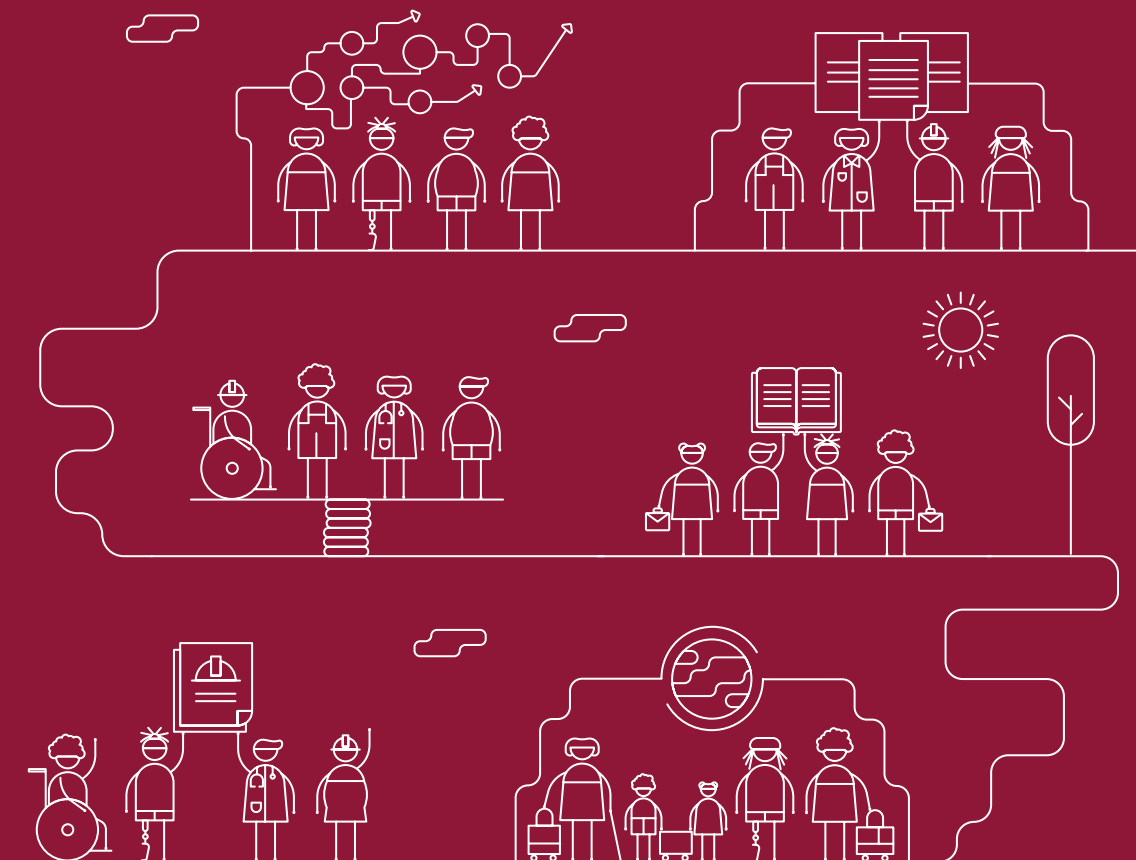
GOAL 8: KEY POINTS & RECOMMENDATIONS

Working in illegal settings is inherently unsafe, unsecure and never as decent as working in legally regulated settings. Lack of regulatory protections, workplace safety oversight and insurance, but also constant pressure and treats from DTOs and law enforcement agencies, make labour in illicit settings a preliminary and central target of policy reforms.

Forced or compulsory labour in relation with illegal Cannabis-related activities should be targeted with priority, in particular as it relates to exploitation or human trafficking.

Criminalising and judicialization of people who use Cannabis contributes to increasing stigma and marginalisation, acting as a barrier to job and employment.

All forecasts on the development of legally regulated markets for Cannabis show the expected positive impact on job and employment.

Large legal Cannabis industries develop new technologies for cultivation, fertilization, processing, and manufacturing of the plant. Small-scale cultivators tend to focus on regenerative agricultural methodologies, increases in productivity and sustainability and reduction of their environmental impact. Both are needed in legally regulated settings. Public policies should adopt social and sound tax policies that are differentiative, in order to foster local investment and ownership over legal Cannabis operations for all.

In all cases (even for larger businesses) taxes waged on Cannabis businesses should be reasonable and proportionate, for legal market to compete prices of the illegal market.

Cannabis policies should encourage the diversification of Cannabis farms production, relying also on non psychoactivity-related purposes derived from the plant, to propose products such as clothing, cosmetics, paper, food, beer, biofuels, animal bedding, building materials, insulation, car moldings, and other consumer and industrial products.

Legally regulated Cannabis cultivation, manufacture, and trade are suitable to village-development and local employment of women and youth, as most jobs in the sector are capable of being performed by young people, or by people with disabilities. It is also suitable for cities or suburbs where job opportunities are scarce in middle- and high-income countries.

The cultivation of Cannabis to tackle depopulation in remote villages is currently implemented, and encourages people to engage in long-term jobs in the rural Cannabis production sector. Such programmes should be encouraged as experimentations to foster rural development.

Governments should assist and monitor the transition of populations previously involved in Cannabis cultivation, from an illicit to a regulated and taxed market, and take particular care in ensuring that legal regulations benefit the people that are reliant on this income. Opportunity must be seize to help small-scale farmers transition to legal settings, ensuring that opportunities are also given to small and medium-scale operations.

Authorities must ensure that financial and insurance services are not denied to legal Cannabis-related operations.

Cannabis has a long historical relationship with travels, travelers, and tourism, and the plant magnifies the development of tourism, particularly in regions where its use or cultivation are traditional. Yet uncontrolled or unregulated tourism can cause social dislocation, loss of cultural heritage, economic dependence or ecological degradation. Sustainable tourism guidelines and indicators should be contemplated, and multimodal tourism (combining agro-tourism, eco-tourism, therapeutic/health tourism) should be preferred.

Local communities in traditional areas of cultivation would benefit from the potential of Appellations of Origin to promote sustainable tourism, increase job creation, community ownership, and promote while preserving local cultures, knowledge, and products.

INDUSTRY, INNOVATION AND INFRASTRUCTURE

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation.
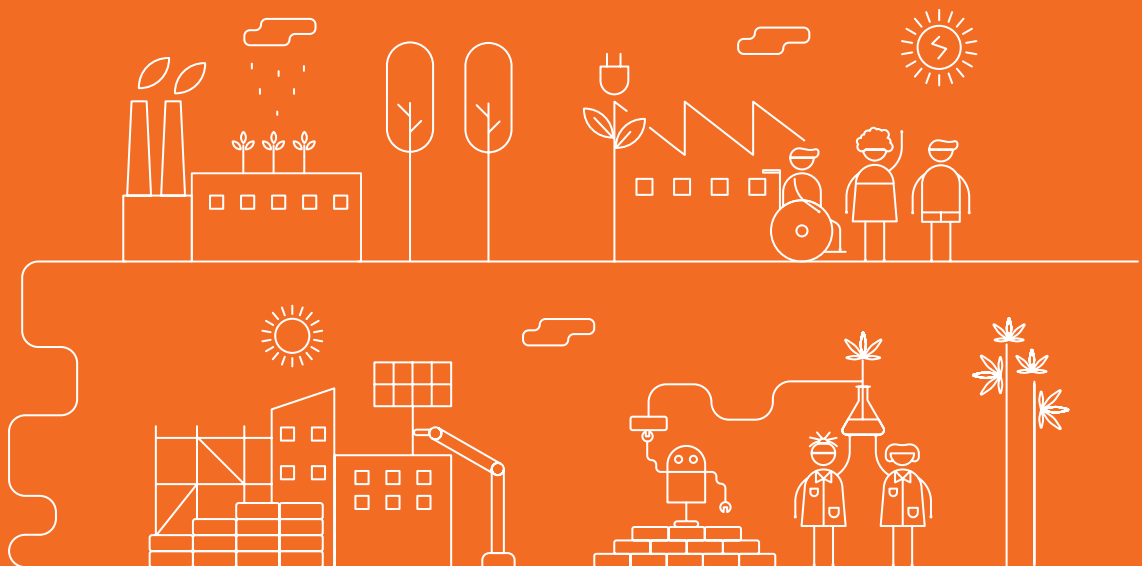
GOAL 9: KEY POINTS & RECOMMENDATIONS

Non psychoactivity-related products of the Cannabis plant have proven to efficiently replace synthetic or petroleum-based materials, being high performance and environmentally-friendly.

Authorities should foster the use of building materials such as "hempcrete" (Cannabis fiber-made concrete) and seed-pressed oils (used for paints and sealants), and consider using these materials locally to incentivize "kilometre zero" markets for infrastructure construction and rehabilitation.

Biocomposites made of Cannabis fibers (polypropylene, polyethylene, polyester) are resistant, durable, cost-effective, and for these reasons already widely used commercially (for furniture, roofing shingles, bioplastic, cars package trays, automotion door panels, etc). That material is key to building resilient and environment-friendly infrastructures and industries.

As Cannabis sequesters important quantities of carbon dioxide during its growth, the territorial repartition of these crops can help existing geoengineering strategies to overcome the adverse impacts of climate change and foster climate resilience.

REDUCED INEQUALITIES

Reduce inequality within and among countries.
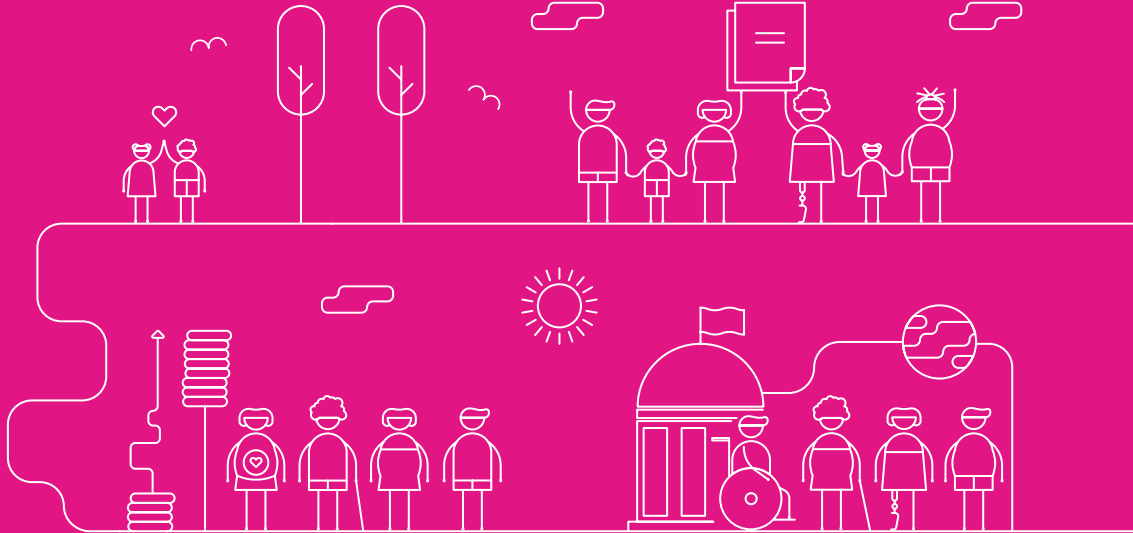
GOAL 10: KEY POINTS & RECOMMENDATIONS

Goal 10 will never be met as long as Cannabis and other drug use, possession, and other related activities continue to be judicialized and as long as users, possessors, or other affected people continue to be criminalized, stigmatized, and undermined in their rights.

The "drug courts" system that justifies a system of exceptionality, an expeditious justice, and a continued unjustified judicialization, and that reaffirms criminal justice as central in the public policy response to health-related hazards, should be discontinued.

Sustainable Cannabis policies should address equality of opportunities and non-discrimination: not restricting access to legal markets for people with prior drug-related convictions, and addressing barriers to entry into the legally regulated Cannabis industry for communities who have been harmed the most by the prohibitionist policies.

Populations affected by human rights violations should be granted their right to remedy and reparation, through programs for equity and inclusiveness in legally regulated Cannabis markets, and through amnesty and definitive expungement of historically unjust convictions.

Because the overwhelming majority of those accused or convicted for Cannabis-related offences are part of ethnic minorities, migrants, foreign national, asylum seekers or people in irregular situation, indigenous and native populations, socially marginalized people and young people, Cannabis policy reforms need mechanisms targeted at these groups, and needs to monitor the impact of reforms undertaken on these populations.

There is a need to superpose various models of production, supply, and access: Home growing and Cannabis peers clubs (to respect the right to privacy and freedom of association); specific supply for medical access (to leave no one behind); for-profit adult use market. Multimodal regulation is needed, as recreational demand risks overwhelming a monomodal regulation model.
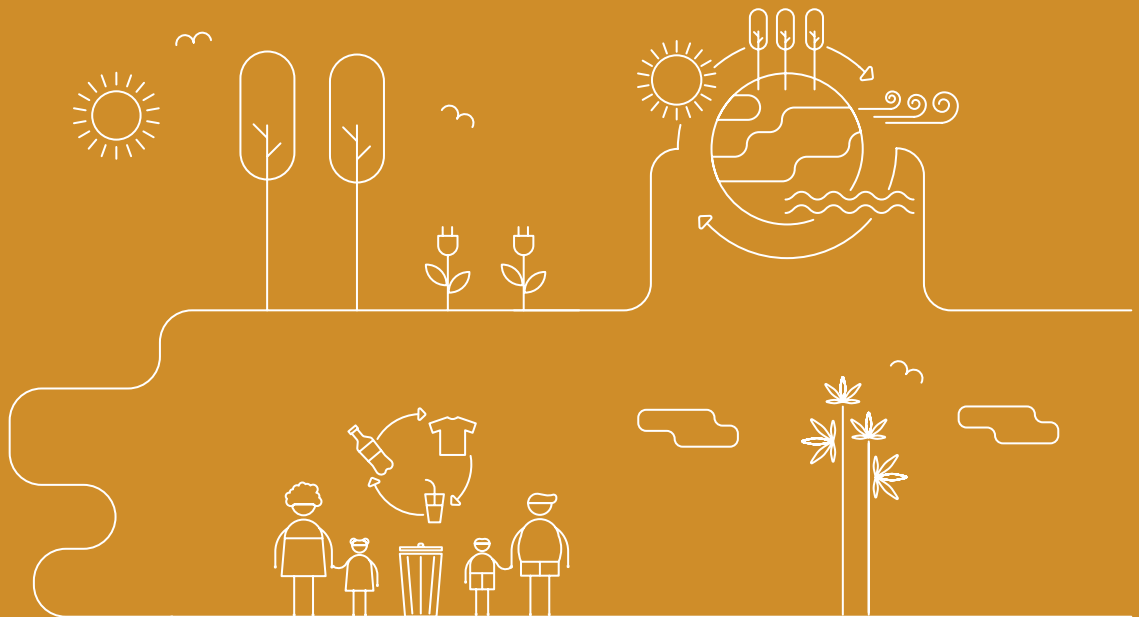
SUSTAINABLE CITIES AND COMMUNITIES

Make cities and human settlements inclusive, safe, resilient and sustainable.

RESPONSIBLE CONSUMPTION AND PRODUCTION

Ensure sustainable consumption and production patterns.

LIFE ON LAND

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss.

GOAL 15: KEY POINTS & RECOMMENDATIONS

While it is unlikely that drug trafficking organizations include environmental outputs in their strategies, legal standards and regulations must lay the framework for legal farmers to do so.

Standards-based regulated geographic indication systems and Appellations of Origin support best practices and environmental protections, market viability of small-scale craft production, rural economic development and environmental health, among others. They should be considered a primary tool with which to navigate the sustainable and global expansion of regulated *Cannabis* crops in rural areas.

Cannabis is best planted with a wide range of other plants, which fosters biodiversity and enhances flowering *Cannabis* to become a source of pollen for foraging bees. Agricultural policies and programs should encourage crop diversification not only within the genus *Cannabis*, but also with other crops.

Research and development on the potential of *Cannabis* crops in phytoremediation and phytoextraction for contaminated land and water should be encouraged.

Specific provisions in international legal instruments on intellectual property might be necessary in order to provide effective protection of *Cannabis*-related traditional knowledge, traditional cultural expressions and genetic resources.

PEACE, JUSTICE AND STRONG INSTITUTIONS

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels.

GOAL 16: KEY POINTS & RECOMMENDATIONS

Prohibitive *Cannabis* policies have massively undermined economic, social, cultural, civil, political human rights.

Policies must stop criminalizing people who use *Cannabis* products and other drugs, and proportionality must be applied to penal and administrative sanctions.

Cannabis "supply reduction" has been almost exclusively focused on customs, police, or even military operations, fuelling violence among criminal groups and escalating State brutality. Public space and institutions should be demilitarized and public safety forces must urgently be trained to embed Human Rights principles in their daily practice.

Multilateral support against corruption and impunity.

Developing legal market regulations for the *Cannabis* plant and its derivatives is a way to address the enormous profits of drug trafficking organizations and their capacity of corruption among politicians, public institutions and economic stakeholders.

To discourage and discontinue illegal cultivation, small-scale farmers must be offered viable opportunities in the legal economy. Social integration in legally regulated markets of people currently involved in illicit trafficking in *Cannabis* products is key.

Failure of mass media to differentiate between regular adult use and abuse, as well as acknowledging the particularities of religious or medical uses, should be addressed.

Fear, torture, cruel, inhuman or degrading treatments, arbitrary detention, the use of lethal force, and arbitrary executions are all symbols of the failure of governments to address the issues of illicit drug trafficking while respecting the rule of law. These must cease immediately and instead be replaced with a call for legal measures of investigation, truth, justice and if relevant remedy and reparations.

PARTNERSHIPS FOR THE GOALS

Strengthen the means of implementation and revitalize the global partnership for sustainable development.
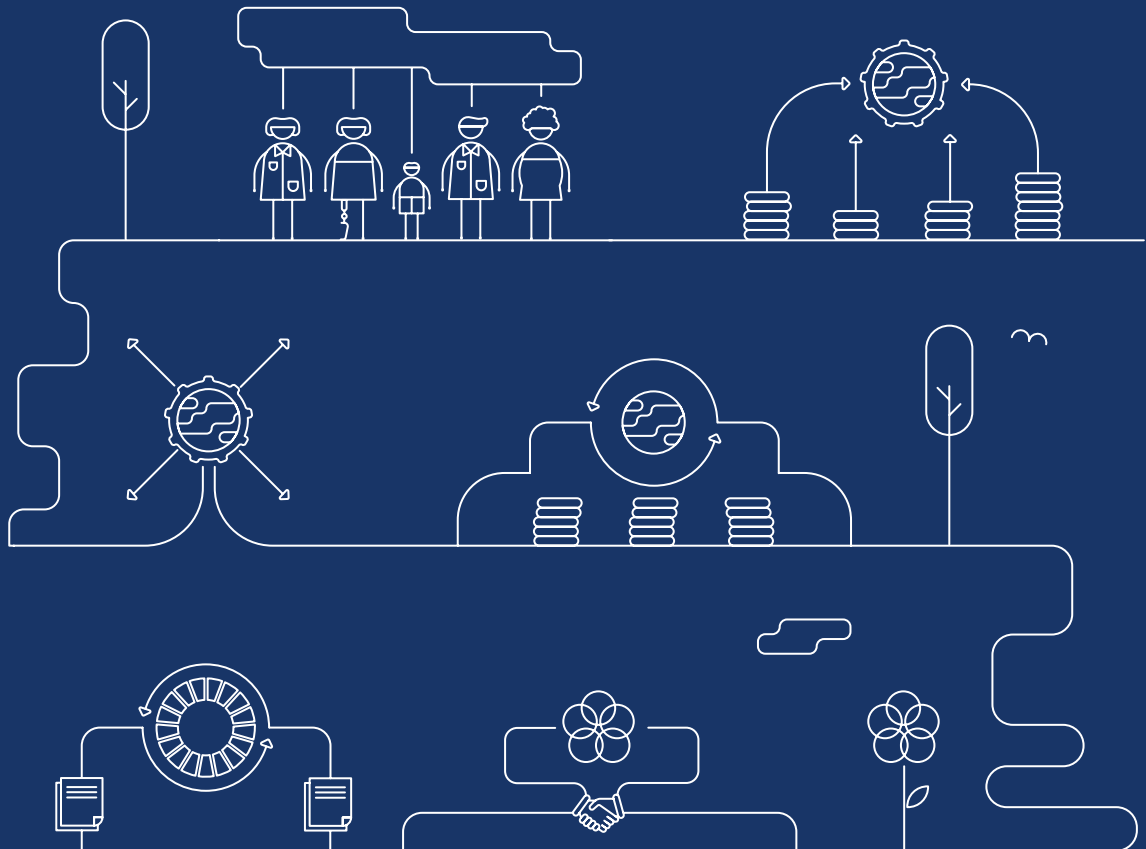
GOAL 17: KEY POINTS & RECOMMENDATIONS

Coherence and consistency of global and national policies and strategies is needed. Rather than maintaining drug policies in a parallel universe with a new post-2019 international plan of action on drugs, the UN Commission on Narcotic Drugs should design drug-control strategies articulated around the Goals of the Sustainable Development Agenda.

Redirecting part of international and domestic government funding of drug control law enforcement towards health and development policies can provide a significant contribution to achieving the Goals of the 2030 Agenda.

Additionally, sound reforms of Cannabis policies would lead to a redistribution of profits and a mobilization of the resources of criminal organizations to public policy action for sustainable development. The transition of crops from illegal to legal settings, diversification of Cannabis plant-derived products, reuse of waste, etc. will create additional financial resources, including increases in legal exports of Cannabis-related products for the least developed countries.

To cohere, policies should stop hampering human rights and overlapping the mandate of ensuring access and availability of controlled plants, products, or substances for medical and research purposes.

Affected populations, peer groups, NGOs, scholars, the health and social care sector as well as the private sector should be involved at all levels of decision, in particular in the early design of Cannabis-related strategies, policies, laws, and regulations.