PŮVODNÍ PRÁCE

Transformace marihuanového trhu v České republice – od "venkovek" zdarma po konkurenční prostředí na trhu s "indoor produkty"



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VÝCHODISKA: Pěstování konopí v tuzemských podmínkách jednotlivých států způsobuje v poslední době změny na globálních trzích s konopím. Česká republika (ČR) se vyznačuje relativně vysokou prevalencí užívání konopí, přičemž represivní složky se zde na problematiku pěstování a přechovávání konopí nijak zvlášť nezaměřují. CÍLE: Cílem této práce je popsat vývoj trhu s konopím v ČR. **DESIGN:** Za použití kombinace metod byla realizována studie mezi uživateli marihuany a jejími drobnými prodejci a pěstiteli. Výběrový soubor byl sestaven prostřednictvím techniky respondent-driven sampling (61 polostrukturovaných rozhovorů, doba trvání průměrně 69 minut, a výsledky reprezentativní populační studie). VÝSLEDKY: Před rokem 1989, v době existence sovětského bloku, bylo v České republice domácí pěstování marihuany ve venkovních podmínkách (outdoor) jediným zdrojem této drogy, kterou si uživatelé mezi sebou zdarma nabízeli (tato praxe přetrvávala až do začátku 90. let 20. stol.). Koncem 90. let se na otevřeném drogovém trhu začala objevovat marihuana dovážená

ze západních zemí, která byla pěstovaná ve vnitřních podmínkách (indoor) ke komerčním účelům. Od roku 2000 se začalo šířit indoor pěstování také v tuzemsku. Přibližně od roku 2005 se rozvíjí velkokapacitní indoor produkce konopí, určeného zejména pro export, zajišťovaná organizovanými skupinami osob vietnamské národnosti. Jak individuální, tak velkokapacitní indoor pěstování se na trhu s konopím v České republice výrazně projevilo, a to zejména snížením jeho ceny. Mnozí uživatelé však nadále zůstávají u nekomerční produkce konopí v outdoor podmínkách. ZÁVĚR: Stejně jako v jiných zemích došlo i v České republice k nárůstu indoor pěstování konopí, ať už na samozásobitelské, nebo velkokapacitní komerční úrovni. V České republice navíc existuje tradice venkovního pěstování konopí a jeho mimotržní nabídky. Je pravděpodobné, že uplatňování shovívavější drogové politiky přispívá k relativně silné roli malokapacitních pěstitelů oproti organizovaným kriminálním skupinám, což se současně projevuje nižšími zisky generovanými v rámci nelegálního trhu s konopím.

KLÍČOVÁ SLOVA: PĚSTOVÁNÍ KONOPÍ – PROTIDROGOVÁ POLITIKA – TRANSFORMACE – KVALITATIVNÍ ANALÝZA

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Transformation of the Marijuana Market in the Czech Republic – from Free-of-charge Outdoor Cannabis to a Competitive Market with Indoor Products



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BACKGROUND: Global cannabis markets have recently been changed by domestic cannabis cultivation. The Czech Republic has a rather high prevalence of cannabis use, and cannabis cultivation and possession have not been targeted by law enforcement bodies. AIMS: The aim of the paper is to describe the development of domestic cannabis market in the Czech Republic. DESIGN: A mixed-methods study among marijuana users, retailers, and growers recruited via respondent-driven sampling was conducted (61 semi-structured interviews, 69 minutes on average; findings from a representative population survey). FINDINGS: In the Czech Republic, domestic outdoor marijuana growing was the only source of the drug when it was part of the Soviet bloc (until 1989), and it was provided for free among the users (until the early 1990s). Commercially grown indoor marijuana, imported from western countries, appeared on the open drug market in the late 1990s. Since 2000, domestic indoor growing has spread. Since around 2005, large-scale indoor growing operations

have been conducted by organised Vietnameese groups, mostly for export. Both the individual and the large-scale indoor growing have had a significant impact on the cannabis market in the Czech Republic, reducing cannabis prices. However, many users still adhere to outdoor cannabis production. **CONCLUSIONS:** The Czech Republic has experienced an increase in self-supply and large-scale indoor cannabis growing, as have other countries. In the Czech Republic, additionally, there is a tradition of outdoor cannabis cultivation and outside-the-market supply. It is likely that a more lenient policy approach contributes to the relatively strong role of small-scale growers, in contrast to organised criminal groups, and that it contributes to lower profits being made on the illicit cannabis market.

KEY WORDS: CANNABIS - CULTIVATION - DRUG POLICY - TRANSFORMATION - QUALITATIVE ANALYSIS

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I INTRODUCTION

The Czech policy with respect to cannabis has been rather non-punitive in the long term. Since 1998, the possession of only a "greater than small" amount of cannabis or other drugs has been a crime (Miovský & Zábranský, 2001). Until 2010, however, the "small amount" was not formally specified. Possession of a "small" amount is prosecuted as a misdemeanour (an administrative offence under the Czech legal system), and the maximum punishment for such cases is a monetary fine. Cannabis received no special attention in the criminal code prior to 2010, when a new criminal code entered into force (Gajdošíková, 2001). The new criminal code drew a distinction between "herbal illegal drugs" and "other illegal drugs" and stated that growing a "small amount" of "herbal drugs" for self-supply is not a crime. In 2010, for the first time ever, the "greater" amounts of drugs were specified in by-law norms. Since 2010, it has not been a criminal offence to possess up to 15 grams of cannabis, which is a fairly high amount in the international context, and to plant up to five cannabis plants. This has contributed to a simplified picture of the Czech drug policy as having "liberalised". This article aims to provide a historical perspective on the development of the Czech cannabis market and its linkages to policy measures.

• 1 / 1 Cannabis use and availability in the Czech Republic

According to the EMCDDA Annual Reports (EMCDDA, 2008, 2009), the Czech Republic is a country with the second highest lifetime prevalence of cannabis use in the 15–24 age group (44%) across the European Union. The estimates from the 2008 general population survey on the use of psychotropic substances (CS, 2008) are, in fact, at the peak of most EU prevalence statistics, with a 15.2%last-year prevalence and 53.4% lifetime prevalence in the 15-64 age group and a 28.3% last-year and 16.7% last-month prevalence in the 15-34 age group (EMCDDA, 2010; Mravčík et al., 2009). In terms of use among 16-year-olds, as shown by the ESPAD survey, the Czech Republic has long been above the European average; lifetime prevalence peaked at 42.3% in 2007, and the last-30-days prevalence reached its top figure of 19% in 2003. Since then, the use rates have been declining (Hibell et al., 2012).

Czech teenagers have long described cannabis as highly available (a stable increase has been observed since 1995, when ESPAD was conducted in the Czech Republic for the first time). In 2011, almost 60% of Czech 16-year-olds perceived cannabis as fairly easy or very easy to get, which was the highest figure among all European countries (Hibell et al., 2012). However, between 2007 and 2011, under the new, "liberalised" legal provisions, it actually dropped by 4 percentage points (a decreasing trend in perceptions of the availability of cannabis among the ESPAD respondents in that year could actually be observed across all of Europe).

1 / 2 Growing cannabis – national and international trends

Domestic cannabis cultivation has shown a stable increase in the developed countries in the last decade, as witnessed by a rise in the numbers of seizures of cannabis plants. On the other hand, seizures of dried herbal cannabis, as well as of cannabis resin, have been on the decline (UNODC, 2013). Given that cannabis use rates have not gone through any significant drop globally, this can be interpreted as a cessation of international trafficking in cannabis, and a shift to local production that only travels short distances to the user and is more likely to be seized in growhouses than within the rather short market chain.

The most recent UNODC report states that "the localized and often small-scale nature of cannabis cultivation and production makes it very difficult to estimate its size at the global level" (UNODC, 2013). The statement refers to the fact that cannabis users seem to favour a small-scale, so-called "designer" or "boutique" market, which can offer a choice of cannabis strains with different combinations of cannabinoids, and for which an organic growing process can be used (Sifaneck, Ream, Johnson, & Dunlap, 2007). This also means that many cannabis users around the globe have shifted to growing their own, despite the fact that they are, in general, facing much higher criminal sanctions than if they purchased the drug on the illicit market - research evidence of such a shift has been collected in the U.S., the United Kingdom, Belgium, and Finland (Decorte, 2008; Hakkarainen & Perala, 2011; Potter, 2008; Weisheit, 1991). It can be argued that this form of cannabis production is "the least worst" on the cannabis market and that drug policies should consider tolerating it (Decorte, 2010).

In the Czech Republic, a new privileged drug crime¹ of "growing drug-containing plants or mushrooms" was introduced by the amended legislature in 2010. According to the bylaw norms, growing up to five female cannabis plants for one's own use falls under the administrative law and is punished by a fine (while growing higher numbers of plants, or growing for somebody else, is considered a crime). Prior to 2010, cannabis growing would commonly be prosecuted as "illicit drug production", unless the court found the circumstances of the crime to be without "societal danger" and decided to remove the charges. According to the general population survey conducted in the Czech Republic in 2008, about 8% of last-year cannabis users had grown their own

^{1/} In this context, "privileged drug crime" means that growing plants or mushrooms containing illegal psychotropic substances will no longer be considered as drug production by Czech law.

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(Mravčík et al., 2009). This paper aims to examine the evolution of cannabis growing in the Czech Republic over time.

2 METHODS

Qualitative data was collected in the Czech Republic with the use of a semi-structured interview guide. The questions in the interview were centred around the topics covered in representative general population surveys collecting self-report data on the marijuana market in the Czech Republic (inspired by those in NSDUH, U.S.) that was indeed analyzed for the purpose of the study. The interview guide also covered: (i) questions about the participants' socio-demographic characteristics; (ii) their level of experience with psychoactive substances; (iii) social experiences with marijuana, such as receiving and sharing marijuana, and market experiences with marijuana such as buying and selling; (iv) other situations, such as trading or giving away marijuana for free, and (v) self-supply, including personally growing marijuana. The respondents were asked to provide descriptions of the last time they happened to be in one of the above-mentioned settings, and then were encouraged to describe the most common situation. The interview guide for the study was constructed using sensitising concepts that include loosely operationalised notions providing some initial direction for the study (Patton, 2002).

2 / 1 Data collection

The collection of the qualitative data was performed using the method of semi-structured interviews that took place in the period from October 2009 to January 2010 on the territory of the Czech Republic. The recruitment of the participants for the study followed a two-pronged approach which included elements of purposeful and snowball sampling (Patton, 2001; Heckathorn, 1997), in order to maximise the level of participant response while minimising the homogeneity of the respondents. First, some participants were directly asked to participate in the study through a drug-related discussion board, as well as through the broader social contacts of the authors of the study. Second, the participants who had been recruited were asked at the end of the interview if they would be willing to recruit other participants they had mentioned during the interview under randomly assigned names. The participants were handed a card containing the interviewer's contact information in order for their social contacts to be able to decide whether to contact the primary researcher themselves. The individual interviews, which were mostly conducted by the first author, took place: (i) in a private office of the Department of Addictology of the 1st Medical Faculty, Charles University in Prague and the General Teaching Hospital in Prague; (ii) in the natural environment of the respondents, and (iii) on the premises of the Podane ruce Association (Brno, Vyškov).

The anonymity of the respondents was guaranteed in all cases. An arbitrarily chosen name was attributed to them, and they were asked not to communicate any information that might disclose their identity during the interview, nor to identify anybody they would mention in the course of the interview. For that purpose, a list of randomly generated names was provided and the respondents could assign them to all the individuals they were mentioning. Additionally, print versions of information on the research and informed consents were available to the respondents. After the completion of the interview, the participants were paid cash compensation for the time spent (CZK 600) and subsequently CZK 200 for recommending each new respondent for the research (max. CZK 600).

The study was anonymous, and approved by the Ethical Committee of the Czech National Monitoring Centre for Drugs and Drug Addiction.

• 2 / 2 Sample description

In total, 61 interviews with cannabis market participants and two focus groups (with an extra 18 participants) were performed in the period from October 2009 to January 2010. 78% of the sample were men, which was, on one hand, related to the higher prevalence of cannabis use by males and, on the other hand, to their greater participation in the supply side of the marijuana market. The youngest respondent was 17 years old; the median and average age was 28 years, and the oldest respondent was 46. The average duration of the interviews was 69 min (see *Table 1*).

The respondents in both samples were active participants in the marijuana market on the demand and supply side. When entering the research, they were aware of its title and thus could expect the research to be targeted on market transactions; however, the voucher for the research transmitted within the respondent-driven sampling did not contain any data indicating that participants from the supply side of the market would be preferred. The majority of the respondents were (recreational) cannabis users; only 28% of them, however, had never sold or cultivated cannabis. Relatively many persons in the sample had experience in growing marijuana (44%). Far fewer had experience in selling marijuana or purchasing it for "friends" (21%). Only one third of the Czech respondents had never grown or sold marijuana. Four interviews were carried out with representatives of the Police of the Czech Republic and the Customs Administration (see Table 2).

The respondents resided in a variety of regions of the Czech Republic (10 out of the 14 regions), which was desired in order to capture both rural and urban patterns of cannabis acquisition and the cultural differences across the regions. The majority of the respondents resided in Prague, the capital city (n = 41); however, out of these, some would acquire cannabis in their place of origin. The regions fur-

ther represented in the sample were the Bohemian-Moravian Highlands (n=7), South Moravia (n=5), Ústi (n=4), South Bohemia (n=3), Karlovy Vary (n=3), Hradec Kralove (n=3), Moravia-Silesia (n=1), Pilsen (n=1), and Central Bohemia (n=1).

2 / 3 Methods of qualitative analysis

Inductive thematic analysis of the data was performed. First, the respondents' accounts of the characteristics of the cannabis market were sorted until a coherent picture of the different market patterns emerged. Further on, the data was sorted into categories with respect to evaluation of different historical periods of the development of the cannabis market. The analysis process lasted until each category was saturated.

STUDY FINDINGS

The findings of the study take a chronological perspective in order to describe the vertical evolution of the cannabis market in the Czech Republic.

3 / 1 Moving from outdoor "self-sufficiency" to imported indoor "product"

In the former Czechoslovakia before 1989, a commercial market in marijuana practically did not exist. This was mainly due to the fact that the borders of the Soviet bloc were closely controlled, and there was hardly any leak of illicit drugs into the communist countries (Gabrhelík, Kubů, Miovský, & Zábranský, 2008; Miovský, 2007). This, however, did not mean that psychoactive substances could not be found in the country. The lack of "western" illicit drugs was compensated for by a variety of means – such as in the case of local methamphetamine production that used derivatives from locally available pharmaceuticals and chemicals (Zabransky, 2007) or as in the case of cannabis that was grown outdoors.

"I would never buy during the communist regime, no. It'd always be from friends who'd grown it or something." (Petr, 46). Naturally, there was no open drug market or drug scene. Cannabis distribution, as with other drugs, was restricted to closed social networks. As a consequence, no price was associated with cannabis: "You never paid for it. It was always like that." (Zdislav, 38). The tradition of a "self-support market" in which only outdoor marijuana was produced and given away free of charge lasted beyond the fall of the regime in 1989, until the mid-1990s. The zero price of cannabis reflected the persisting social norms around it, as well as the low cost of outdoor production, and the relatively low quality of the outdoor-grown cannabis at that time: "At that time, you could get just weak stuff, it's such a big difference compared to what you can get in 2009" (Standa, 32).

Self-sufficient networks centred around outdoor marijuana were partially replaced by a higher-grade product in the second half of the '90s, when an indoor marijuana market was created (the period 1995-2005). Marijuana grown indoors started to be imported into the Czech Republic, mainly from the Netherlands. The users could tell that the origin of cannabis was rather foreign, because the material showed signs of being shipped over a distance, as Kevin (24) noted: "I don't know exactly where it was imported from, but it was pressed together into small bricks. You don't see that any more in the country." This new market provided incentives for organised groups to participate in trafficking and sales. Jan (31) described his former employer: "There must have been a group of people doing it. Sure, he wouldn't take a car himself and bring the whole shipment of weed from the Netherlands; they must have had a way to get it here."

Because of the restricted availability of the imported marijuana on both the wholesale and retail level, the prices allowed for substantial profit margins. "I guess it's not so easy today any more, but when I'd sit in front of that high school, in the park, I mean one could really make a lot of money, 'cos it would be 50 crowns more on each piece that was sent out to the world. And if it was something good, you could sell it for three hundred, I totally forgot about that...Three hundred a gram, that's totally unbelievable!" (Kevin, 24). Additionally, many users were charged per gram, but the actual weight of the amount they bought was much lower, as Ondra (25) describes his dealing practice: "I'd always buy some, four grams for 1000 CZK, I'd make it into five, keep one for me, and sell four again." In the initial stages of the development of the market, consumers could easily get cheated too: "Today, they sell mostly skunk. It wasn't like that before, when there was barely any marijuana. In those times, you would sell anything, pretending it was cannabis." (Pavel, 28).

From the user's perspective, the commercial market represented a natural, useful merger with the tradition of outdoor growing, since it helped them to get through the period when they ran out of the crop from their own outdoor harvest. Michal (29) explained: "So the guys have most of it in the autumn, right. Then still during the winter, and then I'd say there is the end of the spring and they already start buying it." Pavel (28) confirmed this: "It has changed in the following way – once you finished smoking yours, you went to get hashish and skunk." And in the course of time, even the elderly cannabis users got used to the new, higher-grade product and incorporated it into their use patterns, as Pavel continues: "We'd start to go and get hash even when there was still our stuff to smoke, yeah, 'cos when you got good hash, it never does any harm (laughs)."

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• 3 / 2 The rise of large-scale growing and the small scale "designer" market

The late 1990s gave birth to a large indoor cannabis growing scene in the Czech Republic, and many users moved from outdoor to indoor cultivation. According to certain respondents, growers, in fact, shifted from outdoor to indoor growing as a consequence of the introduction of the unlawfulness of drug possession for one's own use in a quantity greater than small (in the year 1998) as a consequence of their worries that the police would have to act in the event of a denunciation by neighbours. Nevertheless, the majority of the respondents ranked the risk of outdoor marijuana being stolen as far higher than the risk posed by the law enforcement bodies. Vincent (26) described his gradual move from outdoor to indoor growing as follows: "In fact, we tried growing almost since we started smoking. We tried it in the wild, outside Prague, but someone would always steal it from there. Through the balcony first, I ended up moving my growing into the apartment." In that sense, the shift to indoor production could hardly be denominated as a direct consequence of the above-mentioned drug policy measure, but rather as a result of demand for quality and of minimising the risks of loss of the crop.

A significant change in the commercial marijuana market occurred in 2005 with the entry of organised groups of citizens of Vietnamese origin. After strict interventions by the Customs Administration of the Czech Republic that were targeted at large border-region market places with fake trademark goods that the Vietnamese enterpreneurs engaged in until then, cases of detected large-scale marijuana growing facilities, accompanied in general by arrests of gardeners of Vietnamese origin, started to occur. Primarily, these organised groups aimed their production at Western European markets, where, according to respondents from the law enforcement sector, the price of 1 kg of marijuana was approx. 25% higher than in the Czech Republic; information about this market pattern has been verified across different data sources (police records, higher-level market participants). However, our respondents witnessed some successful attempts by the Vietnamese groups to expand on the domestic market, which they targeted through dumping prices on the wholesale level.

Jan (31), who had experience with dealing marijuana in large volumes, described the entry of Vietnamese groups into the wholesale market as follows: "Well, during that time, it was no problem to sell a gram for 120, 130 CZK [in an amount of 1 kg] and then the Vietnamese started, and suddenly they would come to someone they didn't know, easy, and gave him a kilo of the stuff and sell it to him for 90 CZK, so suddenly nobody wanted to buy from the sources that were traditional and good-quality, but also for a certain price. People didn't care about the difference in quality." Jan's level in the distribution chain (sales in volumes from 0.5 to 1 kg) was bypassed – the Vietnamese businessmen were taking bigger risks in negotiating directly with an upper market level, without pre-established relationships. Importing marijuana from abroad, especially from the Netherlands, ceased to be a profitable business (this is also documented by police statistics on the decrease in the numbers of seizures of big volumes of dried marijuana, and, on the contrary, an increase in the numbers of large-scale growing facilities that were detected). The dumping prices practically moved one wholesale level out of the business and led to an overall reduction in profit margins.

In general, the respondents considered marijuana from Vietnamese large-scale facilities to be of bad quality, this despite its clearly intensive effects. "But in this last year, it's just good-quality stuff - nothing from the Vietnamese or so on." (Radek, 24). The problem would be caused by the inappropriate usage of fertilisers (e.g. application just before the harvest, which was speeded up for the purpose of higher profits) or inappropriate drying methods. Vietnamese-grown marijuana would rather be available on the "open" market, taking place predominantly in pubs and bars with a relatively low threshold for buying marijuana, and relatively high prices. Many users, however, rather sought quality and the minimisation of health risks, which could be provided through small-scale growers, as Vincent (26) stated: "This guy Aleš has a small home box and he really takes care of it, you can be sure that he'll flush out the fertilisers. ...when you grow your own in a closet, you want quality, you don't care so much about maximum yield."

Thus, another important factor in the development of a competitive environment has been the increasing indoor production of small-scale home growers, who would often cover their start-up costs and costs of electricity by selling their surpluses. Certain users started to grow relatively large amounts of marijuana (according to the respondents, indoor apartment grow facilities would yield from 20 g up to 2 kg once every three months), and started to supply their social network. Kevin (24) described the people he sometimes bought from: "You get to know quite a few users that are very much into it, and many of them are growing. I can ask them if I need something." Hung provided a similar account: "As chronic users, they have to count 100 grams for a month, at least, for themselves, not for sharing with friends. They would cover their consumption, so that they don't need to buy anything, and sell the rest."

Overall, indoor cultivation operations would have such fixed costs that growing just for one's own use would mean that the cost per gram of home-grown cannabis would be above the current market prices – providing a substantial incentive for the growers to grow more than they needed and to give away part of their crops. The study respondents, in fact, described quite a variety in growers' approach to sales - sometimes, it would occur in a very restricted network of friends, while in other cases, it could be rather more "commercially" oriented, despite still remaining within the circle of the social network. Vladan (31) provided an example: "I have other friends that grow it, not for their own use, but for living. Well, not really for living; let's say they use it to cover the costs of growing and lamps, but it's more or less just for a symbolic price." Others even used a broker to put their home production on the market. A broker would normally have more than one growing source to maintain his stock, as Rudolf explained: "I mean the harvests would overlap... He [the broker] always had someone he could call. This means that at least three people work in this way, I think." A minority of growers took the risk of disclosing their activities and gained bigger profits through direct contact with users: "This girl Berta, the one who grows it, it would be for 200 [CZK], or if I buy a bigger amount, it would be 180, but I know that it's her stuff, she knows what to use on it and suchlike." (Bruno).

3 / 3 The current cannabis market – price differentiation, reduced profits, and

"free-of-charge" transactions prevailing Removing one level of profit-makers, as well as increased competition among the growers, led to a decrease in prices on the final, consumer market. "Have you noticed any change, for example in prices, during the period you have been smoking?" "Prices, yes, now it costs 200 CZK, while in the past it was 250. Automatically," said Samantha (17). The competition, apparently, went up, and market players had to adopt to it: "Everybody knows this, it used to be 250 CZK per gram and we, the progressive dealers, we pushed it down to 200." (Zdenko, 25). At the same time, differentiation in the discount mechanisms in volumes achievable for final users occurred, since the availability of the source product increased. "I put the price down 'cos I had a big quantity at home that I didn't want to have there and I needed to get rid of it. I got offered a lower price, it was something like 130, it was going to be a bigger take, so I grabbed the chance and got rid of it." (Vitek, 35). Users would also be getting more "just" quantities during their purchases: "As far as weight goes, it's better now..." (Daniel, 28). The price dicrease and discount mechanisms were a great change from the 1990s, when, as Daniel (28) described earlier on, the market had very stable pricing. This all contributed to a decrease in the profits of marijuana growers, dealers, and upper-level market players. Zdenko (25) talked about how the profits went down: "There's no way you can earn on it like it was five years ago. Take my friend Nikolas, he made nice money on it in the past, but today nobody can make so much as before. As I say, the price used to be 250, now it's down to 200. And some people will even give you different figures here, because they buy it somewhere for 150."

Nevertheless, the culture of outdoor cannabis cultivation and free-of-charge acquisitions has continued alongside the commercial market, as Standa (31) explained: "For sure, some 80% of my friends grow, either at home if they can, or anywhere outside, in the woods. This was prevalent even among the younger market participants: "I already had my first plants when I was in middle school. I enjoyed growing. I like doing it, growing, playing with the plants. As I said, I don't smoke much, only on special occasions." (Tomáš, 22). In some instances, users join together to cultivate, in order to minimise the cost of maintaining their cultivation. Jiri described the model as follows: "I help him with advice, ordering stuff, sometimes I pay for the seeds and he gives me a part of the harvest. And when we go somewhere, to the festivals, then I pay for the petrol, we take my car and he takes care of the marijuana."

The wide cultivation culture also relates to the general "giving out" and "free-of-charge" culture in which cultivators proudly share the outcome of their activity: "Now I remember, recently he stopped to see me at work, but I wasn't there, and he left a huge bud there for me, his stuff, as a present, for me to try it, I guess" (Vladan, 29).

Table 1 / Tabulka 1

Study population in the qualitative research on marijuana markets in the Czech Republic

Populace kvalitativního výzkumu marihuanových trhů v České republice

	Czech Republic	
Sample size	61 + 8	
Period	X. 2009 – I. 2010	
Females	22%	
Age (min / mean - median /max)	17/28/28/46	
Monetary incentive	600 CZK (30 USD)	
Average length of interview	69 min	

Table 2 / Tabulka 2

Experience of respondents in the Czech Republic related to marijuana acquisition – supply side of the market, demand side of the market and law-enforcement bodies

Zkušenosti respondentů s pořizováním marihuany v České republice – představitelé trhu na straně nabídky i poptávky a zástupci represivních složek

Characteristics of respondents		
User (only)	17 persons	27.9%
Grower	27 persons	44.3%
Dealer	13 persons	21.3%
Police of the Czech Republic / Other	4 persons	6.6%
IN TOTAL	61 persons	

4 DISCUSSION

In the Czech Republic, domestic outdoor marijuana growing was the only source of the drug when it was part of the Soviet bloc (until 1989), and it was provided for free among the users (until the early 1990s). Commercially grown indoor marijuana, imported from western countries, appeared on the open drug market in the late 1990s. Since 2000, domestic indoor growing has spread. Since around 2005, large-scale indoor growing operations have been conducted by organised Vietnamese groups, mostly for export. Both the individual and the large-scale indoor growing have had a significant impact on the cannabis market in the Czech Republic, reducing cannabis prices. However, many users still adhere to outdoor cannabis production. An overview of the different modalities on the market and their development is presented in *Figure 1*.

The development in the Czech Republic in terms of shifts towards domestic cannabis production has many parallels with the developments observed in Western countries. For instance, British cannabis users saw the replacement of hashish by herbal cannabis, which later on was found less and less in compressed form (Potter, 2008). In comparison with the countries that have experienced a sort of "green avalanche" in terms of increased domestic cannabis cultivation, some differences can be observed. • Shifts in the Czech cannabis market from an international perspective

First, the ethnic concentration of large-scale growing in organised Vietnamese groups has not been observed in the countries such as the U.K., the Netherlands, or Belgium, and nor have the predatory marketing strategies they used. It should be mentioned that a large Vietnamese community lives in what was formerly Czechoslovakia as a result of the historical relationships between the communist governments of the past. In terms of the current role of the organised Vietnamese groups, this study suggests that cannabis produced by them in the Czech Republic was intended for markets abroad. There have been suggestions that the target market could actually be the Dutch coffee shops. This could somehow complement Decorte's description of the increase in large-scale operations in Belgium for the Dutch market, possibly to compensate for the more stringent approach of law enforcement bodies in the Netherlands towards their domestic growing operations (Decorte, 2010).

Second, one of the commonly listed factors that is referred to as having contributed to the "green avalanche" in Western European countries – the emergence of growshops – could be somehow weaker for the Czech Republic, since the Czech growers seek ways to replace parts of the facility with gadgets sold by gardening suppliers so as to avoid high prices. However, the know-how that had already been developed (broadly available online nowadays, as acknowledged by Decorte, 2010) definitely played a role in many indoor marijuana growing efforts that are intended to replace

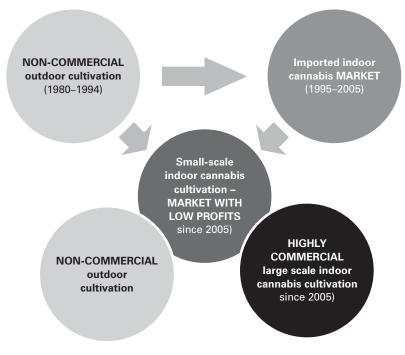


Figure / Obrázek 1

Development of the Czech cannabis market ? product and market modalities 1980–2005 Vývoj českého trhu s konopím – produktové a tržní modality 1980–2005

TRANSFORMATION OF THE MARIJUANA MARKET IN THE CZECH REPUBLIC ...

the illicit market product and the profits made on it. The other factors listed by Potter (2008) (a high demand for cannabis, established supply networks, and a liberal social environment) seem to fit the description of the Czech situation.

Third, the "green avalanche" on the Western markets would refer to replacing (brown) hashish with (green) domestically grown cannabis (Decorte, 2010; Jansen, 2002; Potter, 2008), but in fact it did not develop in the same way in the Czech Republic, because it only partially replaced the "green" with "another green". What we see as an additional feature of the Czech cannabis-growing culture is the tradition of outdoor growing, dating back to before 1989, that is favoured by the feasible climatic conditions. This could be a common feature of other Central and Eastern European countries where no comparable studies exist so far.

It is, however, important to note that widespread small-scale cultivation and a free-of-charge acquisition culture have remained in existence, along with the commercial market. This might represent a rather specific feature of the Czech cannabis market that can only be approximated by the "social club" model that has recently emerged, mainly in the Basque Country and Catalunya (Barriuso, 2011).

• Size of the market and price decrease

The study respondents described a significant decrease in prices for users on the Czech cannabis market. A decrease in prices, along with an increase in the variability and average strength of the product after the emergence of domestic cultivation of cannabis, has been observed in the UK too (Potter, 2008). In the Czech Republic, the price decrease was not confirmed by the official data on marijuana prices from the police statistics (the mode price increased from 150 CZK to 250 CZK between 2006 and 2009). It can be assumed that the law enforcement data are built up on the basis of the open market, which does not use the protection of social institutions (purchases in closed networks of friends, or from befriended dealers). At the same time, the open market is of minor importance to regular users, who (i) consume the greatest share of the market and (ii) as a result of the chronic nature of their use, make substantial investments in self-protection and cost reduction. The relative shares of open vs. closed markets and their features remain unknown. The authors have, however, explored the risks imposed by different cannabis acquisition chains in a separate article (Běláčková & Zábranský, 2014).

• 5 CONCLUSIONS

The Czech cannabis market has experienced a turbulent development since 1989, from a no-market self-supply culture, through a market with high profit margins, to a highly competitive market with the strong involvement of a self-supply culture (a sort of merger of the first two stages). It has been shown that the latest stage of the Czech cannabis market has, from different aspects, led to a decrease in marginal profits since the late 1990s. This has been achieved through: (i) the replacement of imports by cannabis grown indoors by Vietnamese market entrants; (ii) a decrease in the seller's surplus, as cannabis is purchased from a grower, or the most proximate broker, and (iii) increased competition on the retail level as a result of the factors listed in (i) and (ii). Self-supplied outdoor cannabis, however, remains a product of choice for many users, despite the low potency and the high risks of theft.

From a moral perspective, this could be perceived as a significant achievement of the Czech drug policy, given that the reduction of monetary profit from criminal activities represents the core pillar of modern criminal codes. This is due to the fact that illegal financial sources tend to generate resources for subsequent criminal activities and criminal organisations, as well as violent disputes over these resources. From an economic perspective, market competition reduces prices, and, at the same time, reduces the incentive for future market entrants to participate in this particular field of activity. This could lead to further reductions in the size of the commercial cannabis market in the Czech Republic.

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