

## SUMMARY AND CONCLUSIONS

Formerly a significant importer of hashish, the Netherlands has steadily developed into a marijuana-producing country. This 'netherweed' is largely grown indoors. The Dutch authorities have been stepping up their efforts to clamp down on marijuana cultivation. From October 2006 to January 2007, we investigated the closure and dismantling of Dutch marijuana cultivation sites. Our study was directly motivated by uncertainty about the quality of current data on the number of cultivation sites being dismantled and the number of marijuana plants and clones (rooted cuttings) or seedlings being seized. The ultimate aim was to propose reliable and feasible methods for generating such statistics in a future monitoring scheme. The study was guided by the following questions:

- A. What actual policies are being pursued, what actors are involved in the dismantling operations, and in what ways?
- B. What information is available about the dismantling operations and what is the quality of the available data?
- C. Approximately how many sites are dismantled annually in the Netherlands, and how many marijuana plants and clones/seedlings are confiscated?
- D. What is the best way to document the number of dismantling operations as an aid to monitoring?
- E. Can evidence be found for the consequences of the de facto policies now being pursued?

### **Research design**

The study was carried out in three stages. (1) In the exploratory stage, we conducted face-to-face interviews with 7 experts and telephone interviews with one key informant in each of the 25 Dutch police regions. The primary focus was on the similarities and differences between the regions in terms of policy, definitions, actors involved, and central record keeping. (2) On the basis of these mapped data, we selected 6 regions for the in-depth stage of the study. Selection was based on variations

in the intensity of dismantling efforts, the record-keeping systems employed, the engagement or non-engagement of dismantling contractors, and the desired nationwide scope of the study. We carried out fieldwork in the 6 regions and interviewed individuals who had knowledge of various aspects of marijuana cultivation and of site dismantling operations; they included policy officials, dismantlers, data managers and market experts. Most interviews were done face to face. (3) In the broad-ranging stage, we conducted a survey. The questionnaire was administered mostly by telephone to police officials, local authority officials, and staff of dismantling, waste processing and energy companies; in the cannabis coffee shop sector, it was administered mostly face to face. Nearly 150 respondents were interviewed. The aim of the broader survey was to obtain more quantitative data about strategies, records kept, numbers of sites dismantled, and trends.

## **Policy**

The intensity of the clampdown on marijuana cultivation sites was found to vary between the police regions, but a clear nationwide trend is emerging of increasingly frequent and vigorous police cooperation with other institutions and with commercial firms. This policy is being formalised under the label 'comprehensive approach' and is increasingly enshrined in formal cooperation agreements.

In recent years, the dismantling of marijuana cultivation sites has taken on the character of a structured, streamlined and even routinely conducted campaign, in which financial interests also play a more and more prominent role. Energy companies, sometimes in combination with private dismantling contractors, are the most important partners in the actual dismantling operations. The energy companies have a dual function. Because electricity for many marijuana cultivation sites has been illegally tapped, it is safer to have professional electricians shut off the power. But the energy companies also have much to gain from closing down as many sites as possible, because the police report enables them to claim large sums in back payments for the stolen electricity. Dismantling firms are increasingly popular because they save the police a great deal of money and dirty work. Housing associations are also increasingly involved in the dismantling activities, though they are not usually present at the operation itself.

With the exception of acutely dangerous situations that require immediate action, the phenomenon of 'harvest days' has spread over many parts of the country. Many re-

regions mount planned all-day actions to bust several cultivation sites in sequence. A region holds roughly one harvest day per month, busting an average of five cultivation sites, but there are differences both between and within police regions. Only a few regions work exclusively with harvest days, and there are only a few regions that rarely or never hold them. Most regions employ combinations of harvest days and ad hoc dismantling operations. Of the regions that stage harvest days, some do so every week and others only a few times a year.

Another development is the confiscation of criminal proceeds under the so-called Pluk-Ze legislation. Reportedly, the policy on the dismantling of marijuana cultivation sites delivers a large proportion of the revenues obtained by government under this legislation (which also applies to hard drugs trade and other criminal activities). Grow shops also appear to be increasingly targeted by law enforcement authorities in their campaign against marijuana cultivation and the organisers behind it.

## **Definitions**

No clear-cut and consistently applied dividing line exists between a plant and a clone or seedling. There is also no commonly agreed, nationally applied definition of a marijuana cultivation site. Although it is rather broadly agreed that a marijuana growing operation should have a minimum of five plants to qualify as a 'cultivation site', that principle has no universal validity, and locations are sometimes designated as cultivation sites even if they contain no plants, clones or seedlings at all. In other words, definitions vary, and that has its consequences for the records kept about the dismantling operations.

In the field, a distinction is often made between small and large cultivation sites. The key distinguishing criterion is the number of plants. Here too, however, no clear criterion exists. That is partly because the technical accoutrements of a location are also taken into account. If the number of plants is also, or primarily, considered, one again sees that widely differing ideas may exist between or within regions. On average, though, the lower limit for a 'large' cultivation site is 500 plants.

The more expertly a cultivation site is fitted out, the more likely it will be labelled as professional. No 'hard' criteria exist, however, and the main guideline appears to be the workers' own experiences with earlier dismantling operations. Given the lack of clear definitions of 'large' and 'professional' cultivation sites, the statistics should be interpreted with great caution.

## Numbers of dismantling operations

Determining the number of dismantled marijuana cultivation sites per year within a particular region often requires gleaning data from various sources and comparing different databases. No established, standardised register of dismantling operations exists in the Netherlands. Moreover, identified locations are not classified in all parts of the country as marijuana cultivation sites, nor always in the same fashion. Not a single police region consistently records marijuana propagation facilities (where clones or seedlings are produced) as a separate category; most regions record them – consistently or inconsistently – as cultivation sites. Drying facilities (where harvested plants are laid out to dry) seem somewhat less likely than propagation facilities to be recorded as cultivation sites. Only a few regions record drying facilities as a separate category. An additional anomaly is that locations which do not (or no longer) contain any marijuana plants at all may still be recorded as cultivation sites, yet there is no consistent, universally applied rule governing this. Finally, the same dismantling operation may be recorded more than once.

To ascertain the number of sites dismantled, it does not suffice to merely click a button in one of the management information systems (BPS, X-Pol, Genesys) of the Dutch police, as the result would often include a plethora of other cannabis offences. If one decides to use such a system, more refined selection followed by manual processing will be necessary to get any reliable results at all. Consulting the records of dismantling contractors is the best alternative way to obtain reliable figures.

After making any necessary extrapolations and adjustments for over- and underestimation, we succeeded in estimating the numbers of dismantled sites in most regions. Undoubtedly these figures contain some statistical noise, as we were sometimes forced to make assumptions (which we have explicitly stated, but which remain debatable) and we cannot guarantee that the adjustments we made were exhaustive. Logically, then, ‘estimates’ is the only right term to use here.

Although we did find some clear regional-level differences between our estimates and those in a report by the National Police Services Agency (KLPD) on 2005, our *overall* figures for the regions where we were able to make estimates were remarkably similar to those in the KLPD report. On the basis of our study, the conclusion seems justified that **about 6000 marijuana cultivation sites** were dismantled both **in 2005 and in 2006**, which amounts to some 500 a month. These figures certainly contain a margin of error, but we are unable to explicate it any further on the basis of our study. Presumably, though, it would not exceed a few hundred sites more or less. We

emphasise that these figures refer to dismantling activities only. We have no way of estimating the total number of marijuana cultivation sites in the Netherlands.

### **Numbers of plants, clones and seedlings**

During the dismantling of a marijuana cultivation site, the plants are usually counted one by one, but calculations or estimates are often made when the numbers are very large. Although normally these are carefully considered and explained, the very quantities involved imply a risk of estimation errors. Clones and seedlings may likewise be carefully counted, but are somewhat more likely to be estimated. The techniques by which these are produced make it generally easier to calculate the numbers than is the case for plants. Here too, though, the chance of erroneous estimates increases commensurately with the number of clones and seedlings in a cultivation site or propagation facility.

Variations are seen between and within regions when it comes to determining the numbers of plants, clones and seedlings. One difference involves whether or not small numbers of plants, for instance fewer than five, are counted at all. Especially relevant is that some regions always count these in making records while others do not. But given the relatively low numbers, the total numbers of recorded plants are not seriously affected. More important is that some regions always include small operations like these in their statistics on the number of dismantled sites, while others sometimes or never do. This may significantly affect the total numbers of recorded dismantling operations in particular regions.

In most police regions, the numbers of marijuana plants confiscated during dismantling operations are recorded in all districts, but there are also regions that do not do so consistently. This means the available records of confiscated plants do not represent full nationwide totals, and that applies even more to clones and seedlings. When numbers of plants are recorded, it is done in various databases. A relatively common data source is internal police records. Another is the record systems of the dismantling firms. Clones and seedlings are quite often recorded as if they were plants.

Some regions were unable to retrieve any figures at all on confiscated plants, clones and seedlings from their record systems. Most regions could produce some figures, but frequently those referred to numbers of plants *including* clones and seedlings. These figures could no longer be broken down. For that reason, our estimates here comprise the numbers of confiscated plants, clones and seedlings altogether. Because

even rudimentary data were lacking in some police regions, our estimates are also not entirely comprehensive for the Netherlands.

If we compare our own estimates to those from the KLPD report (which is possible only for 2005), then our figures come out approximately one quarter higher. On the basis of our data, we estimate that **roughly 2.7 million marijuana plants, clones and seedlings** were confiscated during cultivation site dismantling operations **in 2005** and **about 2.8 million in 2006**. Although this suggests a slight increase over the two-year period, it does not yet qualify as a clear upward trend.

### **'Small' cultivation sites**

There were some manifest differences between regions in terms of the numbers of dismantling operations recorded. In regions that also recorded 'small' cultivation sites, estimates of the number of sites dismantled averaged twice as high as those in regions that did not. A complicating factor was that more of the regions in question were also pursuing more active policies against marijuana cultivation. Even so, comparison of the data showed that the average number of plants, clones and seedlings was about 100 *lower* per cultivation site in the regions recording small cultivation sites than in other regions. Hence, those regions apparently either perform relatively more small dismantling operations, record their operations more liberally, or both.

### **Monitoring**

The Dutch national authorities have set out to obtain the most reliable possible figures on the numbers of dismantled marijuana cultivation sites. Yet a problem of definition currently exists, in terms of both the numbers of sites dismantled and the numbers of plants destroyed. If the operations in question were not targeting marijuana, then it would probably not occur to anyone to refer to a location containing five or even fewer plants as a cultivation site. The policies pursued turn out to vary widely in practice, and this partly explains why sizeable regional differences are seen in the figures relating to the number of dismantled sites. That is an undesirable starting condition for a nationwide monitoring system. Practically speaking, we are now comparing apples with pears. A more fundamental issue is that a very broad definition of 'marijuana cultivation sites' serves to artificially and disproportionately inflate the problem.

The difficulties of monitoring the campaign against marijuana cultivation lie not in the dismantling operations themselves, but in how the records are kept. Problems may arise in both data input and data retrieval. In other words, even if data are entered consistently, they are not necessarily easy to obtain from the databases.

### *Definition*

To enable consistent nationwide monitoring, all regions need to employ the same definitions if at all possible. In particular, it is often unclear at present how a clone or seedling ought to be distinguished from a plant. More fundamental nationwide definitions are also lacking, including what should actually constitute a marijuana cultivation site. As a first step, we have therefore formulated several definitions of concepts that would be crucial to the nationwide monitoring of actions against marijuana cultivation. We confine ourselves here to minimum definitions, meaning that any definitions must at least satisfy the criteria we propose.

*Marijuana cultivation site:* A marijuana cultivation site is a premises or a piece of ground where five or more live marijuana plants are being cultivated for the production of marijuana. All growing spaces at that particular location should be counted as part of the same cultivation site.

*Propagation facility:* A propagation facility is a location at which live clones or seedlings, but no live plants, are found (with the exception of any 'mother plant' that might be present there).

*Drying facility:* A drying facility is a location in which harvested plants or tops are found.

*Plant versus clone/seedling:* From the point of view of monitoring, a pragmatic and hence logical conclusion from our study would be to lump plants, clones and seedlings together in future counts. The major disadvantage to this would be a gross overestimation of the number of actual plants destined for the market, as many clones and seedlings presumably would never have grown into full plants. Marijuana plants are still *clones or seedlings* as long as they are located in propagation trays or slabs. Once they are planted in pots or in open ground, they are called *plants*.<sup>19</sup>

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<sup>19</sup> A consequence of this definition would be that clones or seedlings that have just been set out in pots or in open ground would be classified as plants even though they have actually still not taken root. This could be remedied by defining a maximum height in centimetres for clones and seedlings, to be determined by systematic research.

### *Recording dismantling operations*

Record keeping on dismantled marijuana cultivation sites in police management information systems could be improved by adding a special form for marijuana cultivation dismantling operations (in short: 'marijuana form') to the program, as some regions have already done. It is important to note that such a procedure will not work properly unless a limited number of persons in the police region are made responsible for the data input on dismantling operations. Evidently that is not easy to accomplish – we observed in our study that the entry forms in the regions that use them are not filled in consistently. To an extent this is understandable, in that uniformed officers who have spent a whole day at dismantling operations may not be particularly keen on completing a detailed data form afterwards.

In terms of reliability, the record systems of dismantling firms might provide a suitable alternative. Such companies have specialised themselves in dismantling marijuana cultivation sites, and they keep detailed records in purpose-designed data systems – not least because they are paid on the basis of these records. Yet some caution is necessary. In practice, there are variations between police regions in terms of when they engage dismantling contractors. As long as regions do not do this on the basis of the same minimum number of plants, the data will be difficult to compare between regions, and possibly also over time. Theoretically such differences could be controlled for and the figures adjusted, provided that the numbers of plants are accurately recorded in the first place. Whatever the case, it goes without saying that it should be standard practice to carefully verify all data, including those kept by commercial companies engaged for police work, and that commercial interests should not be allowed to influence policy.

To monitor the numbers of dismantled marijuana cultivation sites in the future, we propose the following procedure. Creating a 'marijuana form' within BPS (or a related management information system) would seem the most complete and practical solution for several reasons. First, the records would be kept in an existing system, so that little time would be lost in implementing the procedure. Second, such a procedure would not be dependent on whether private dismantling firms are contracted (although they might still deliver essential data). Third, the form could be designed to accommodate all the needed data.

We reiterate the vital importance of consistent records. For this reason alone, we strongly recommend keeping the form as user-friendly as possible; filling it in should not be an overly complicated or time-consuming chore.

A key area that needs attention is the recording of ‘false alarms’. It is very difficult at present to distinguish sites where no marijuana cultivation was encountered from those where a site was dismantled. It is therefore important that a ‘marijuana form’ be completed only when a cultivation site was actually found.

To enable monitoring, we believe the record system should keep track of the following information at the minimum:

- Whether the location involved a cultivation site, propagation facility, drying facility or some combination of these. A propagation facility should count as a cultivation site, but records should always indicate whether it contained clones or seedlings only. A drying facility should *not* be counted as a cultivation site.
- Number of plants
- Number of clones/seedlings
- Method by which the numbers of plants and/or clones and seedlings were counted or estimated
- Type of location (e.g. private dwelling, commercial premises, open air).

Additional data are conceivable or even essential; these might include:

- Who dismantled the site (police, local authority, dismantling company, combination of these)?
- Was electricity theft involved?

If the monitoring system is also to keep track of other indicators, such as price trends, then it will not be sufficient to obtain data solely from the police. Our experience was that much of police knowledge about these types of developments on the cannabis market was not up to date.

If full nationwide introduction and consistent use of the proposed ‘marijuana form’ should not prove feasible either now or for the future, an alternative would be to select several regions that do have the capability of keeping consistent, systematic records. Although that would allow no accurate conclusions about the total annual numbers of dismantling operations or about the national situation, it would enable trends in the control of marijuana cultivation to be monitored over time. It would also make it easier to keep track of developments in strategy and in record keeping,

as well as any influences these might have on the numbers of dismantling operations. In selecting the regions to be monitored, one could take into account considerations like the methods used in dismantling operations and the priorities assigned to dismantling efforts.

### **Trends and policies**

The control of organised crime in and behind marijuana cultivation was a major argument for intensifying policy. What we see in practice, however, is that police action is often triggered by instances of public nuisance. This might explain why relatively few *outdoor* cultivation sites are seized, though it is also conceivable that not many such sites actually exist in the Netherlands. Our study does not justify the conclusion that organised crime is now either more involved, or less involved, in marijuana cultivation than was previously the case. If anything, we observe a tendency whereby law enforcement authorities also target smaller growing operations. In our interviews and survey, the typical scenario of *street-level bureaucracy* (Lipsky, 1980) loomed large. Policy formulated at the central level must be put into practice at lower levels. Policy implementers devise their own approaches, such as by concluding cooperation agreements in the region. Staff on the ground have their own discretionary powers and make their own interpretations of their tasks. The original aim of cracking down on organised crime does not necessarily remain paramount. The practice that results might then be characterised mainly as hit-and-run.

Three marginal notes should be added to that observation. First, contrary to what might be implied by 'hit-and-run', many operations are in fact based on a systematic strategy, as evidenced by practices such as staging 'harvest days' and hiring dismantling firms. Second, the number of cases accompanied by thorough investigation of the organisers behind marijuana cultivation tends to fade from view when compared to the sheer number of dismantling operations. Although most operations are indeed characterised by the 'short strike' approach of swift action, some other cases are handled as 'long strikes', the objects of longer police investigation. Third, 'short strikes' are also consistent with official national-level policy in some cases, as when acute situations like fire hazards or flooding have come to light.

In the field, we observed certain shifts in practice, notably in terms of the types of cultivation sites, yet many of the changes were small. The most characteristic changes seemed to involve relocation to different types of locations (fewer sites inside private

dwellings) or areas (more sites outside urban areas), scale enlargement and technological advances. The fewest changes were seen in the types of marijuana growers; as far as changes occurred in this respect, they mainly suggested greater variation. This, in combination with the types of cultivation sites being encountered, led some observers to speak of a more sinister atmosphere and an increasing involvement by organised crime in marijuana cultivation. Others contradicted this, however, and it may be too hasty to assume criminal involvement simply on the basis of the technical equipment found at cultivation sites. Although not all observers reported changes in the marijuana market, many of those who did so spoke of very significant shifts, pointing mainly to the soaring price of netherweed, particularly in 2006.

Data we obtained at the kilogram level indeed confirmed that price rise. Yet it cannot automatically be attributed to the dismantling operations, or at least not entirely. The summer of 2006 was a hot one, and the number of crop failures was relatively high. We detected a mild sense of panic in the marijuana market, and the very rumours of supply shortages may have driven prices even higher. Our impression that the prices had again begun to decline in the course of our study leads us to doubt whether there is a continuing upward trend.

All things considered, we conclude that the dismantling of marijuana cultivation sites, in combination with accompanying measures such as evictions, may have touched off some changes such as the relocation of cultivation sites, but that relatively autonomous processes were also at work. Notably these include technological innovations, most of which were neither specific to marijuana cultivation nor specific to the Netherlands.