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Towards a New Articulation of Alternative Development: Lessons from Coca Supply Reduction in Bolivia

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Once heralded as the success story of coca supply reduction, Bolivia is now witnessing an increase in coca cultivation. Even as coca fields in Bolivia were forcibly destroyed in the past decade, new fields were being planted elsewhere, leaving coca production in the Andean region at a roughly constant level. This begs a rethinking of alternative development programmes, the policies being rendered ineffectual by the increasing use of force. This article seeks renewed momentum for alternative development by gleaning lessons from its earlier failures. Moreover, it suggests a new articulation of alternative development that emphasises the socio-economic cause of coca cultivation – the demand by the rural poor of Bolivia for income and food security.

> Contrary to popular wisdom, operating in the underground is hardly cost-free … Whether you are inside the bell jar or outside, you will be taxed. What determines whether you remain outside is the relative cost of being legal. (Hernando de Soto, 2000: 155)

1 Introduction

In January 2003, organised coca farmers held nationwide strikes that shut down Bolivia's major highways for two weeks and led to the deaths of at least 20 people (*The Economist*, 2003a). Eight months later, much of the popular displeasure that ousted President Gonzalo Sánchez de Lozada was attributed to his alliance with US anti-drug interests (Rohter, 2003). These are but the latest demonstrations of frustration over the increasing violence of the government's efforts to reduce the coca supply. During the 1990s, counter-narcotics efforts throughout the Andean region shifted towards military operations (including fumigation and seizure of property), primarily as a result of US pressure. Andean countries made every effort to meet US eradication quotas, on which they were dependent for aid not only from the US government but also from international agencies. Bolivia, in particular, has been heralded as the success story of such forced eradication; its area of coca cultivation reduced from 48,000 to 15,000 hectares between 1994 and 2000. Those who urged forced supply reduction predicated their arguments on the failure of previous attempts, particularly those known as alternative development. These programmes consisted of infrastructure, credit, and

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agricultural microenterprise projects that sought to promote licit income-generating alternatives to illicit drug cultivation.

It has become clear, however, that forced coca eradication programmes have also failed. Regional experts point to what they call the 'balloon effect': reduction of acreage in one area simply moves production elsewhere (*The Economist*, 2003b). While coca cultivation diminished in Bolivia and Peru in the late 1990s, it increased proportionally in Colombia. As Colombia implements its current coca eradication programme, cultivation is increasing proportionally in Bolivia and Peru (Rohter, 2003). Indeed, the region as a whole has seen roughly the same amount of land dedicated to coca cultivation throughout the past two decades (UNDCP, 2003: 190).

Forced eradication campaigns have also had serious adverse consequences. The growing militarisation of eradication campaigns conversely militarised the organised coca farmers (Léons and Sanabria, 1997; Farthing and Potter, 2002), leading to immobilising and violent strikes.[1] The campaigns also exacerbated through repression and human rights violations the poverty and socio-economic exclusion that had led peasant farmers to coca cultivation in the first place (HRW, 1996; de Ferranti et al., 2003: 26).[2] In so doing, they have undermined alternative development. While recent supply-reduction programmes in the Andean region included alternative development projects alongside coca eradication – a so-called 'carrot and stick' approach – the 'carrot' is often sidelined by policy-makers and mistrusted by coca farmers (Sanabria, 1997).[3] Alternative development efforts have simply been 'unable to keep up with rapid advances in eradication' (Ledebur, 2002: 6), and have been rendered indistinguishable from forced eradication efforts (TNI, 2002: 6).

Alternative development – in its original form, uncoupled from forced eradication – therefore seems to merit renewed examination.[4] This article considers potential avenues towards such a new form of alternative development by examining the socio-economic reasons for its earlier failures. While political realities have certainly changed since the introduction of alternative development in the 1980s, and a forward-looking alternative development programme would have to take account of an already heightened level of mistrust and fear, the lessons of previous efforts at alternative development are edifying. I will suggest ways in which these lessons may be addressed in a new implementation of alternative development.

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1. Informality has also been linked to support for terror groups, as in Peru (de Soto, 1989). In Bolivia, no such organised militant group has emerged. This may, however, be changing: on 11 December 2003 eight coca growers linked to Colombia's National Liberation Army (ELN), a guerrilla group, were arrested for their involvement in the recent killings of government troops carrying out coca eradication in the Chapare (NACLA, 2004).
2. A 2002 estimate suggests that these eradication efforts resulted in a loss of approximately US$500 million a year to the Bolivian economy, equal to 6% of Bolivia's GDP (Lifsher, 2003).
3. For instance, of the $1.3 billion given by the US to *Plan Colombia*, a mere 10% is earmarked for alternative development projects, with the majority going to support military campaigns and forced eradication programmes (Hellin, 2001).
4. While I agree with the broad scholarly consensus that supply-reduction policies would be far more effective if complemented by significant demand-reduction programmes in cocaine-consuming (developed) countries, I limit my scope here to supply reduction. I also omit discussion of decriminalisation as a method of supply reduction (see for example, Lanza, 1995: 141-5) not only because it seems unviable, given current global political realities, but also because decriminalisation would undermine a vital source of income for Bolivian peasant farmers.

Since coca cultivation by peasant farmers has already been directly linked to poverty and economic exclusion (Rasnake and Painter, 1989; Mansfield, 1999; de Ferranti et al., 2003), Bolivia – South America's poorest country – seems the most adequate case. Indeed, roughly 70% of the Bolivian population (and 94% of its rural population) were living below the poverty line in 1992 (Grootaert and Narayan, 2000: 5); in 2001, the richest 10% of the population received an income over 90 times greater than that of the poorest 10% (UNDP, 2001: 150). The central feature of the Bolivian experience of alternative development is that peasant farmers did adopt the licit crops being offered as alternatives, not least because such offers included financial credits. And yet Bolivian farmers on the whole did not entirely replace their coca crops.[5] This is the conflict for which I shall offer prospective resolutions.

This study will focus on two major alternative development projects prior to the overwhelming militarisation of counter-narcotics in Bolivia. The cases cover the period of alternative development programming during the 1980s and early 1990s, prior to becoming heavily embedded in the repression of the 'carrot and stick' approach. This time period provides the best analysis of alternative development in Bolivia for three reasons: (i) forced eradication began in earnest in 1995 – when the first Sánchez de Lozada government was on the brink of US decertification – and increased exponentially with the implementation in 1998 of President Hugo Banzer's 'zero coca' *Plan Dignidad* (Hellin, 2001: 143); (ii) until the late 1980s, alternative development agencies were structurally dissociated from those forcing coca eradication; and (iii) clashes between peasant farmers and Bolivian security forces escalated dramatically, starting with the march on La Paz of June 1991 (Sanabria, 1997: 185), with the ensuing increased militarisation of both sides.

By comparing the recurring failures of these alternative development programmes, I shall highlight auspicious trends that repeatedly went unaddressed.[6] These comparisons will draw on primary accounts by academics and fieldworkers, institutional and independent programme evaluation reports, journalistic reportage, and secondary analyses. Through successive analysis of each case, I shall draw comparisons that show clear trends linked to the following common failures: counterproductive conditionality on credits, narrow vision and emphasis on short-term success, blind adherence to a pure competition economic model, inadequate market appraisal of viable alternative crops, lack of appropriate infrastructure development, bureaucratic conflicts, and paternalistic implementation approaches. I shall address these failures with specific policy recommendations for their resolution in future alternative development programmes. By way of conclusion I shall also suggest that the future success of alternative development will require not only an assessment of the lessons learned, but also a new articulation of alternative development, one that will address farmer demand

5. I disagree fundamentally with Thoumi's (1999) claim that alternative development failed because of the social structures of Andean societies that promoted illicit economic activity. While the acceptability of illicit activity among rural farmers should be stemmed through, for example, education, socio-economic integration into the licit economy is the linchpin of successful supply reduction. Farmers are indeed interested in growing legal crops: a 1998 survey of Chapare alternative development projects found that, despite Thoumi's claims to the contrary, 92% of the sample population had taken part in at least one alternative development project (Ledebur, 2001: 3).
6. In fact, even those alternative development programmes that have since been implemented alongside forced eradication have only repeated the mistakes of their predecessors (Ledebur, 2002; TNI, 2002).

for a coca-based income and the complexity of the illicit economy's relationship to underdevelopment.

2 Agroyungas

In 1985, the UN Fund for Drug Abuse Control (UNFDAC) funded Agroyungas, a five-year alternative development programme in the Yungas valley region. The Yungas has a long history of coca cultivation not only for traditional purposes but also as a cash crop. Yungas farmers, however, produced a diversity of products, including coffee and citrus fruits. Coca, though the most valuable of these cash crops, accounted for only 8,000 of the Yungas region's 51,000 hectares of cultivated land. In fact, the Yungas region accounted for some 15% of Bolivia's coca production; the majority of coca production is concentrated in the Chapare region, where previous supply-reduction programmes had been focused. Agroyungas, however, was envisaged as a pilot project that, if successful in the Yungas, would later be expanded. The objective of the UNFDAC in Agroyungas was straightforward: to co-operate in agricultural development in order to restrain the international drug trade and reduce the production of coca in Bolivia.[7] It reflected precisely the supply-reduction objectives of the US and Europe, with rural development as the means (Econométrica, 1990: 185).

2.1 Doomed project approach

Agroyungas began with a strategy that was fundamentally flawed and exposed its narrow vision. The programme signed agreements with communities rather than with individuals to reduce coca production in return for infrastructure projects, agricultural credits and a 'technical package' of inputs to help cultivate new varieties of coffee. But since certain better-suited regions of the Yungas were already cultivating vast amounts of coffee, these communities were the ones most interested in participating in Agroyungas. The project therefore became concentrated in areas that already produced far less coca and where farmers were already far better off than those where coca was the primary source of subsistence. Of the 56 agreements Agroyungas signed, not one was in the areas of dense coca cultivation (Léons, 1997: 151).

The agreements stipulated that the farmers agree up-front not to plant new coca fields, thus provoking impassioned debate within communities. The town of Chimasi, where 45 hectares would be replaced, became notorious as a divided community that eventually erupted into violence (ibid.: 154). From the farmers' perspective, they should only have been expected to make promises after the project had been functioning for several years and had demonstrated results (Econométrica, 1990: 92). Having only been funded for five years, however, Agroyungas needed to show short-term results. Agroyungas officials, hurrying to sign agreements, therefore made unrealistic promises to communities in order to get agreements signed; different functionaries often made different promises to members of the same community (Léons, 1997: 153).

Interactions between project functionaries and Yungas farmers thus became increasingly hostile, exacerbated by the project's paternalistic approach. Project

7. Econométrica (1990: 108) reports that, at the time, 80% of Yungas residents were living below the poverty line and another 15% were on the borderline.

fieldworkers, mostly middle-class foreigners, were headquartered in tourist accommodation in the region's larger towns and were provided with transportation: 'Their lifestyles were scarcely that of the [farmers] they were trying to work with' (ibid.: 155). Moreover, most fieldworkers did not speak Aymara, the language common to the mostly indigenous farmers of the region. These language and class barriers chipped away at the integrity of the project, to the point that minute administrative decisions, like the project's expenditure on fieldworker salaries (eventually revealed to have represented a mere 19% of the project's total expenditure) became topics of heated public debate (Econométrica, 1990: 192).

2.2 Failure of the crops

The substitute crops themselves, whose success was tied directly to the success of the project, also failed as a result of both the narrow vision of the project design and the absence of adequate market appraisal and infrastructure development. Coffee was the primary alternative crop promoted by Agroyungas. An existing Bolivian cash crop, coffee already had international market demand. Agroyungas introduced four high-yielding coffee varieties developed in Colombia and Brazil, which grew far better in the drier plains of Brazil than in the Yungas (Lanza, 1995: 116). Since Bolivian farmers would be competing with better climatic conditions for coffee growing in Colombia and Brazil, they needed a 'technical package' of inputs such as fertiliser and insecticide (Léons, 1997: 156). Assistance was provided in the form of credits of US$2,000 per hectare planted with the new varieties.

Nearly 2,500 farmers ultimately took part in Agroyungas, devoting an average of 0.71 hectares each to the new coffee varieties. Few, however, actually purchased the inputs required by the technical package. Some poor farmers were doubtful of investing in an unproven crop (Econométrica, 1990: 240); others may have diverted the credits to funding other family needs or emergencies. Studies conducted during and after the project showed that few coffee fields were in good condition and most had not been fertilised (only 10% in one area), decreasing their projected output three-fold. Even where fertiliser was utilised, it was often used in levels far below Agroyungas recommendations (ibid.: 227-8). Still, little effort was made by Agroyungas officials to understand why farmers had not used the fertilisers and how they could be persuaded to do so.

The doubts of the farmers turned out to be prescient, particularly since Agroyungas provided little support to them in the face of economic and ecological problems. In 1986, world coffee prices crashed, dropping 60% by 1990. Although the crash could not have been anticipated, Agroyungas had no contingency plan and in fact seems to have all but disregarded the change in price. Its planners had projected a steady rise in coffee prices and did not revise these figures even in their final project analysis (ibid.: 236-40).

In the face of ecological problems with the new coffee varieties, the project's technicians did not properly support farmers with technologies to at least forestall the coffee crops' failure. The new varieties seemed to be less tolerant of the Yungas climate than the Creole coffee already grown there. Owing to the irregular rainfall in the region and the drought from 1989 to 1991, many of the new plants did not survive. A 1991 evaluation of Agroyungas showed that only half the coffee planted remained in good condition (Léons, 1997: 157). The final blow was the massive infestation of the coffee crops with *broca* disease. In some areas, the disease destroyed nearly 90% of crops, including the native Creole coffee varieties (Econométrica, 1990: 229). The origins of the disease are unknown, though farmers blamed the lack of proper sanitary precautions when the coffee varieties were brought into the region, since it had never before affected the Yungas. While insecticides were encouraged by the Agroyungas technical package, many farmers had not purchased them (Léons, 1997: 158). For their part, Agroyungas officials had not assessed the potential for disease or climatic crisis, nor had they devised a contingency plan. And even in the face of the disease, Agroyungas technicians did nothing to promote the recommended insecticides further.

2.3 The allure of coca: 'It always gets a good price'

Exacerbating Agroyungas' disastrously erroneous projections and, more significantly, its inability to revisit these projections in the face of crisis, was inadequate market appraisal. Since the 1970s, the assumption had been that deterrence and enforcement would provide the necessary incentives for peasant farmers to shift towards alternative crops. Moreover, legislation and effective enforcement were believed to make coca production less lucrative (Sanabria, 1997: 173).

Coca, however, remains a relatively lucrative crop: it requires little care and yields several crops per year. Liliana Ayalde, current head of the US Agency for International Development (USAID) mission in Bolivia recently pointed out that 'coca just grows… It's a weed. Farmers don't have to worry about markets and diseases. It always gets a good price' (Lifsher, 2003). At various times, coca seems to have been between four and 19 times more profitable than the next most profitable crop (Atkins, 1998: 99). The independent evaluation of Agroyungas by Econométrica concludes that, with no fertiliser used, the cost-benefit ratio of coffee cultivation was far better for the production of Creole coffee than for the new varieties (2.02 compared to 1.44). Moreover, the report admits that the plunge in coffee prices – the loss of crops to drought or disease notwithstanding – would make it difficult for any farmer to repay the loans (Econométrica, 1990: 244). In a 1990 radio debate, the director of Agroyungas acknowledged that it would take twice the land planted in coffee to give a return equal to that of coca (Léons, 1997: 159-60).

Nevertheless, it would be inaccurate to conclude that there is no viable alternative to coca cultivation in Bolivia. Studies have shown that farmers would be willing to grow less remunerative crops in exchange for adequate technical and financial support and security from repression (Rasnake and Painter, 1989: 33). Moreover, there are added costs to extralegal activity – fluctuating prices, violence from traffickers, high costs for protection, and corruption (Lee and Clawson, 1993: 43; de Soto, 2000). Farmers, however, cannot forgo their coca income while they wait for alternative crops to become profitable. Crops like coffee take years to become successful and usually yield only one crop per year. Agroyungas crops planted in 1990 would not be profitable until 1992 or 1993 at best (UNOID, 1990: 4). Still, in their narrow vision, Agroyungas planners had not developed a ramp-up scheme for replacing coca with their coffee varieties. Rather, as already mentioned, they required that farmers first agree to forgo further coca income and only subsequently granted them credits.

2.4 Failure of non-traditional alternatives

In 1988 the passing of Act 1008 on the Regulation of Coca and Controlled Substances by the Bolivian government dramatically undermined Agroyungas. The law designated 12,000 hectares in the Yungas region for legal cultivation of coca for traditional use. Since only 8,800 hectares were being used in the region for coca cultivation at the time, the law essentially promoted its expansion. As a result, Agroyungas was forced to refocus to designated areas where coca was to be eradicated. It began to focus on creating development centres to promote diversification of the economy with substitute crops, pig raising, fish farming, and bee keeping. Rather than promoting coffee cultivation, it emphasised non-traditional crops like passion fruit and macadamia nuts (Econométrica, 1990: 266). The projects under way in the newly legal zones were abandoned (Léons, 1997: 161). This lack of follow-through seems endemic: in 1998 Bolivia's Vice-Minister for Alternative Development, José Decker, admitted that the authorities had not complied with over a thousand agreements made with coca farmers (Ledebur, 2002: 4).

While the development centres demonstrated that non-traditional crops would grow well in the region, no market appraisal was undertaken to ensure that they would provide the promised income. Unlike coffee, the non-traditional crops did not have established export channels and the impoverished domestic market could not absorb them.[8] They soon proved uncompetitive in the international market and therefore unviable alternative sources of income for farmers. For example, passion fruit was to be sold to Germany. Once farmers began to harvest their fruit, the project received an offer from the German government to purchase 60 tons of frozen passion fruit juice monthly at US$1,100 per metric tonne. The cost of production of the frozen juice was nearly three times that, however, leaving the farmers with no income. The pig-raising project, praised by UN evaluators, was eventually abandoned because refrigeration facilities had not been installed (Léons, 1997: 162). After destroying his coca fields and planting watermelons, one farmer said: 'There is no market to go to, and the roads are bad … If we don't get help, we are going to plant coca again' (Smith and Long, 1990). The infrastructure and marketing channels were simply not developed for the alternatives being promoted to farmers.

Those infrastructure projects that had begun under Agroyungas could have helped farmers to develop alternative incomes. In 1990 they called for the extension of Agroyungas in order to complete such important projects as road building and electrification. But within a year of the project's termination the infrastructure projects as well as the development centres were abandoned. And although one of the aims of Agroyungas had been to strengthen state institutions in the region, the end of the project also saw an exodus of government technicians from the region (Léons, 1997: 163-4). By then, many peasant farmers had returned to growing coca, now also unable to repay their Agroyungas debts. The government, moreover, refused to forgive these debts, arguing that the low price of coffee was one of the risks faced by any farmer (ibid.: 160).

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8. Commendably, recent alternative development projects have recognised the volatility of export markets and have begun to focus instead on domestic consumption (Hellin and Higman, 2003: 129).

3 Chapare Regional Development Program

The 1980s saw an enormous expansion of coca cultivation as a result of the economic crisis triggered by three factors: (i) a seven-year drought beginning in 1983 that effectively eliminated rain-fed agricultural production in parts of the country; (ii) hyperinflation (reaching 24,000% at its peak in 1985), followed by neoliberal structural adjustment;[9] and (iii) the collapse of two of Bolivia's major export industries: tin, in late 1985, and natural gas in early 1986. Smallholder farmers and unemployed miners who could no longer support themselves turned to coca. According to Bolivian government estimates, coca cultivation expanded from approximately 23,000 hectares in 1980 to 61,000 hectares by 1989 (Atkins, 1998: 98). By the mid-1980s, coca production, centred in the Chapare region, had become the livelihood of much of the Bolivian workforce.

The Bolivian government signed an agreement with USAID to establish the Chapare Regional Development Program (CRDP) as early as 1983, though the project was stalled until the government regained control of the region in August 1984. Like Agroyungas, the CRDP suffered repeatedly from misdirected focus, lack of emphasis on infrastructure support, and narrow vision. For years it was also damaged by incompetent leadership and bureaucratic failure, exacerbating its eventual outpacing by forced eradication.

3.1 Another doomed approach

The CRDP began by implementing a series of infrastructure development programmes. Project and USAID officials, however, unaware of the pervasiveness of the cocaine trade, were dismayed to find that their infrastructure improvements were benefiting drug traffickers. At the inauguration of a new road in late 1985, local inhabitants told officials that the road was so well constructed that the previous evening a small plane had landed on it (Rasnake and Painter, 1989: 15). An earlier study by the Organisation of American States (OAS) recognised that strengthening infrastructures would improve conditions for narcotrafficking. However, the OAS argued that, while coca production would increase in the short term, promotion by development institutions of alternative crops would diminish the importance of coca over time (Painter, 1990: 4). Nevertheless, USAID terminated all of its new road construction in early 1986. By 1990, even the UN had only opened seven kilometres of new roads (Bostwick et al., 1990: 26).

In 1987, the CRDP therefore reformulated its mission. Through an independent study and with the help of USAID, it shifted focus towards attempting to stem the flow of seasonal workers from the highlands above the Chapare to its coca-growing regions (Kent, 1990: 1). On the one hand, it recognised that the boom in coca cultivation was due to upland migration from the high valleys where subsistence on other crops had become untenable. On the other hand, however, the shift in focus redirected the CRDP towards less problematic regions rather than to the heart of the problem. In fact, only

9. The Bolivian government's US-backed economic austerity plans in 1985 led to a dramatic growth of the informal sector. This neoliberal programme exacerbated the country's dependence on coca dollars (Andreas, 1995; Thiele, 2001) and created ideal conditions for the growth of the coca export sector (Rasnake and Painter, 1989: 13): 'There is little doubt that in Bolivia the problem of external debt would be far more severe were it not for the additional help of resources from cocaine' (Roca, 1997: 207).

41% of its total funding would be earmarked for the Chapare (Rasnake and Painter, 1989: 15). Like Agroyungas, the CRDP was thus from the outset misdirected away from the root of the problem.

Moreover, its reformulated objectives failed to recognise the vital role of infrastructure development. Resources were not adequately allocated to targeted infrastructure projects in order to benefit the substitute crops being promoted. In the Mizque region of the Chapare, a grape project failed because production and transportations costs were not addressed, making the Mizque grapes uncompetitive in the market (Painter, 1990: 12). Another effort in 1989 persuaded many farmers to plant orange groves, promising to build a processing plant. Since the farmers were required to eradicate their existing coca crop before receiving aid, once the processing plants failed to materialise, they were left with rotting crops (Ledebur, 2002: 5; Lifsher, 2003). Those infrastructure projects that were implemented essentially assumed that 'doing anything at all in the project areas is a contribution to the goals of alternative development' (Painter, 1990: 17). The CRDP therefore misdirected not only its geographical focus but also its selection of infrastructural development projects, losing farmers' trust and undermining the success of substitute crops.

Strict conditionality further diminished the reach of the CRDP, as it had with Agroyungas. In the early stages of the CRDP, the town of Chimoré accepted the 100% eradication conditionality (later changed to somewhat more gradual conditionality), entitling it to a development project. The CRDP invested US$9,000 in the construction of a market despite the fact that the town already had a permanent market of 150 stalls of which only 25 were in use. Another project with immediate impact in Chimoré provided bricks for the extension of a prison, a project whose link with development is puzzling (Kent, 1990: 7).

At the other extreme was the case of the town of Villa Nueva, which also accepted the 100% eradication conditionality. The CRDP invested approximately US$250,000 in the construction of and equipment for a medical post, potable water, and access road improvements, despite the fact that Villa Nueva is located in relatively marginal agricultural lands (Kent, 1990: 7). Rather than invest in projects to benefit the region as a whole, conditionality therefore limited the scope of the CRDP to the local level, focusing only on communities that agreed to the stipulated conditions. Like Agroyungas with its focus on immediate impact, logical planning and project development in the CRDP became subordinated to coca reduction.

3.2 'Whimsical' project leadership

The 1986 redesign also placed the CRDP under the supervision of a new government agency, the Undersecretariat for Alternative Development and Coca Cultivation (SUBDESAL). The SUBDESAL was granted wide powers ranging from co-ordinating the necessary economic sectors to generating bilateral and multilateral co-operation to the vast authority to develop 'any activities that it saw as falling within its area of responsibility' (Rasnake and Painter, 1989: 18). The design as well as the implementation of the agency's powers would, as with Agroyungas, reveal the narrow vision of policy-makers in their experiments with alternative development.

Specific lines of authority and responsibility were not defined, creating an atmosphere of constant uncertainty and self-contradictory decision-making. The

SUBDESAL became heavily involved in a vast array of foreign and domestic policy issues, many of which put short-term pressures on the CRDP and hindered its progress. Relationships between the various implementing institutions became increasingly ambiguous. The UN entered the mix in 1988 through a UNFDAC project without clarifying its role with respect to the existing bodies (Painter, 1990: 7).

The leadership style of the first head of SUBDESAL, most charitably described as 'whimsical', also exacerbated ambiguities: 'Decisions were made changing fundamental directions of the project without consulting those… responsible for implementing them' (ibid.: 7). When technical personnel challenged these decisions, they were characterised as 'disloyal' or 'saboteurs'. In 1988, the entire technical staff of one implementing agency were fired on these grounds. By March 1989, a mere 77.5 hectares of coca had been reduced in the Chapare (Rasnake and Painter, 1990: 19). Not only were farmers critical of these bureaucratic conflicts, they also quickly noted the wasteful spending that resulted from such conflicts and sudden changes of direction. Like Agroyungas, CRDP's technicians and officials continued to receive high salaries despite wasteful spending (Sanabria, 1997: 174), making many coca farmers resentful. One former regional environmentalist with USAID said that much of the funding 'simply disappears because of administrative overheads and expensive consultants' (Lifsher, 2003).

The project thus suffered from serious deficits in credibility and stability. When its leadership was finally replaced in 1989, there was some hope that the CRDP could finally begin to make a difference, but the same flaws apparent in Agroyungas were still a part of the CRDP.

3.3 Coca and food security

Experience showed that farmers opted to eradicate only some of their existing crop, maintaining some coca for income security purposes. Households were found to retain 0.5 hectare of a total 2 hectares cultivated as an insurance against vulnerability (Bostwick et al., 1990: 44). In analyses of various projects, many CRDP implementing agencies cited the problem of enforcing the farmers' agreement to destroy their coca fields *ex ante*. Many farmers destroyed old fields in order to get the CRDP credits (like Agroyungas, amounting to roughly US$2,000). Others used a portion of the loan money to replant coca.[10]

Farmers would only consider complete eradication once they were guaranteed viable alternatives. After all, they are among the poorest and most marginalised people in South America: government figures for 1992 estimated life expectancy in the Chapare at 40 years and infant mortality of at least 17% (though health experts assume that the true numbers are even worse, since many families do not report infant deaths). Only 6% of Chapare residents had potable water in 1992 (McFarren, 1992). Without

10. Various authors have rightly asserted that such sums create 'reverse conditionality', giving farmers an incentive to plant new coca fields in order to receive credits for subsequently eradicating them (Mansfield, 1999: 7-9). Lee and Clawson (1993: 50) suggest that the cost of planting one hectare of coca bush is between US$1,000 and US$1,500. Therefore, for every hectare of coca bush eradicated, 1.5-2 hectares could be replanted. While 'reverse conditionality' is an inherent obstacle in alternative development, it is exacerbated by the iteration of alternative development programmes. In other words, farmers understandably lose confidence in alternative development with each failed project. A long-term, well-budgeted alternative development programme would help mitigate this problem.

proper assurances from the government and foreign aid agencies, and because of repeated experiences with unfinished development programmes, peasant farmers are justifiably reluctant to forgo the only crop they are reasonably assured of selling.

Coca is secure not simply because it is lucrative, as already mentioned, but also because it yields several crops a year. While the first, second or third crops can suffer from unforeseen disease or ecological fluctuations, the fourth or fifth may still be viable (Bostwick et al., 1990: 40). As one farmer said in 1990 when coca prices became sharply depressed, 'Even though it isn't profitable, coca is our only cash crop … We can't give it up' (Smith and Long, 1990). Evidence indeed suggests that, even among large landholders, a minimum of coca is cultivated – just enough to guarantee a level of cash income and ensure food security (Painter and Bedoya, 1991: 33-44).

Even when farmers did destroy their coca fields and introduced the alternatives promoted by the CRDP, the political infrastructure and multilateral consensus necessary for the competitiveness of Bolivian goods on the international market did not exist. In 1990 experts suggested that soybeans and citrus fruits stood an excellent chance of being competitive internationally and replacing coca cultivation, particularly since they were already among Bolivia's agricultural exports. But legislation pending in the US Congress that would have provided the technical assistance to Bolivian farmers to grow these crops was rejected in 1991 as a result of the efforts of powerful US soybean and citrus grower lobby groups. The US Department of Agriculture successfully argued that US aid programmes could not be used to encourage production of commodities that might potentially compete with US exports (Gugliotta, 1990; Léons and Sanabria, 1997: 26). Chapare farmers were thus unable to sell their soybeans and, inevitably, returned to growing coca, now burdened by additional debt.

In another instance, farmers produced several tons of ginger following a CRDP suggestion. Once the harvest took place there was a widespread scramble to find markets. While the farmers had expected to receive US$3-$4 per kilo, the ginger finally sold at US$1 per kilo, and they were paid only after considerable delay. Later, CRDP technicians suggested pineapples and persuaded 600 farmers to plant one hectare each. But no market had been appraised when the pineapples were introduced. Rather, technicians 'assumed that this potentially large supply will interest some buyer, somewhere' (Bostwick et al., 1990: 23) within the 18-month production period. By then, however, the farmers were already in debt.

The lack of an international market for substitute crops was the result of inadequate infrastructure development which made transport costs high. But another factor contributing to their lack of success was that most coca farmers were smallholders and therefore could not reap the economies of scale that would make their products marketable. According to a 1991 study, 92% of those interviewed in the Campero and Mizque coca-growing regions of the Chapare held less than 5 hectares of land (Pérez-Crespo, 1991: 13). Many smallholders also had their land distributed into several plots – as many as four – making the cultivation process very difficult (Bostwick et al., 1990: 33). With coca, a small plot could, over a year, yield a substantial amount, certainly enough to provide food security to a farmer household. And while coca farmers were willing to grow less remunerative legal crops, they could not make substitute crops competitive with such small fields. This was not a problem for farmers with larger plots: studies have shown that Chapare households with over 5 hectares of perennial crops rarely grow coca (Mansfield, 1999: 5). But smallholder farmers, those who are poorest and therefore most susceptible to a dependence on coca, could not produce competitive alternative products and in the end lost faith in substitute crops, echoing the sentiments of one farmer in 1992: ‘I’m willing to plant other crops if I can sell them, but if not, what’s the point?’ (McFarren, 1992).

In June 1992, the CRDP was succeeded by the Cochabamba Regional Development Program (CORDEP), a programme with a somewhat broader geographical focus but essentially the same objectives. CRDP had spent US$38 million but a mere 4,000 hectares of alternative crops had been planted (Lee and Clawson, 1993: 2).

4 Conclusions: alternative development with real alternatives

A 1992 study estimated that the impact of alternative development in the Chapare was a net loss of US$17 million to coca producers between 1984 and 1991, as a result of eradication and replacement linked to alternative development projects (Argañarás, 1997: 68). Mansfield (1999: 4) further suggests that reductions in coca cultivation in Bolivia’s Chapare region have been accompanied by ‘deterioration in the general health and diet of the population, resulting in an increase in the incidence and intensity of malnutrition’. Bolivian government officials conceded in 2001 that only about a third of coca-growing families had benefited from alternative development projects (Ledebur, 2002: 5). Farmers have thus become distrustful of alternative development, now also perceived as linked to the violence and repression of forced eradication.

Undoing the damage to the perception of alternative development will be challenging. Implementing a new programme of alternative development would require that both the government and the coca growers be open to compromise and seek consensus. Moreover, it would require the willingness and support of the US government. Violence and mistrust have grown to such extents in Bolivia that it may well be optimistic to believe that any conceivable Bolivian government could be in a position to implement a new alternative development scheme. Neither a hardliner government like that of the recently ousted Sánchez de Lozada nor the populist one promised by former presidential candidate and head of the Federation of Coca Growers, Evo Morales, would likely be able, much less willing, to try. Still, this type of commitment is a question of political will. And while it is not an assured outcome, it seems the best possible resolution is that the Bolivian government and the coca growers work together rather than risk escalating the conflict.

The evidence has shown that alternative development could be made to work towards successful, long-term coca supply reduction. Stakeholders on all sides truly interested in sustainedly eliminating coca cultivation must eventually confront these facts. Alternative development is not a panacea. But if lessons are learned from past experiences and deployed in new, strictly socio-economic alternative development programmes, we may begin to see the successful reduction of coca cultivation.

4.1 Instructive failures

The lessons of past alternative development programmes are clear: with proper design, implementation and planning, the problems can be avoided. Specifically, five principal policy implications should be underlined.

First, the trust of coca farmers will have to be won back by recognising their demands, negotiating with coca farmer unions and compromising on key issues. In particular, new alternative development programmes should adopt a participatory, democratic approach, involving farmers and their unions (and perhaps even municipal governments) in decision-making and building mutual trust.[11] They should soften conditionality, allowing farmers to maintain portions of their coca fields to ensure food security until substitute crops become viable. These fields can be phased out as substitute crops prove marketable and secure. Softer conditionality will also allow for regional project planning, basing funding and resource allocation on need rather than on eradication.

Second, analysts should encourage agricultural diversity rather than emphasise projected high economic returns. A one-to-one ratio in terms of remuneration is not necessary. What is necessary is a one-to-one ratio in terms of income/food security. Coca is secure not simply because of its normally high price but because it provides several annual harvests, one of which can surely provide income. Perhaps no other single crop can provide such security. But a packaged combination of crops with proven markets may do so. Alternative development programmes should focus on combining high-yield crops with diverse harvest periods, providing a full annual cycle of income. Contingency plans should also be developed with farmer groups to consider how to handle widespread crop loss or market fluctuations.

Third, alternative development schemes should work with farmer groups and communities to create economies of scale. Most coca farmers are smallholders with land often distributed into several small plots. Making such small crop quantities marketable is difficult, as previous experiences have shown. But pooling farmer resources across communities and working in conjunction with already existing farmer unions can help create economies of scale that can reduce transaction costs. Programmes could also involve non-governmental organisations in helping farmers learn the new skills and new technologies with which to enter niche markets (Hellin and Higman, 2002).

Fourth, infrastructure development must complement new alternative development programmes. While it is certainly true that certain infrastructure developments will benefit drug traffickers in the short term, those same infrastructures will be vital to the market success of substitute crops in the long term. These infrastructural improvements should be free of conditionality, serving rather to build trust and demonstrate that policy-makers are serious about real economic development. Dedication on the part of policy-makers will go a long way towards renewing mutual trust.

Lastly, policy-makers and donor agencies must establish long-term objectives and strategies for alternative development. Short-term goals, while necessary for assessing ongoing project success, must be weighed against realistic timelines. Short-term success

11. A recent World Bank study (Narayan et al., 1999) showed that the world's poor give great weight to 'the powerlessness that stems from dependency on others' (p.217).

should be measured by the planting and harvesting of alternative crops rather than the eradication or replacement of coca fields. This will allow short-term goals to be realised and will give farmers time to eradicate their coca fields over the long term as alternative crops prove viable and secure. Long-term vision must also focus on the sustainability of crop markets and have direct Bolivian government involvement in working to protect alternative crops.[12]

4.2 A question of supply and demand

A new push for alternative development would also need to articulate a fundamental refocusing of perspectives. In order for supply reduction to succeed, policy-makers must refocus their efforts towards reducing the demand among Andean populations for a coca-based income. Alternative development must substitute the safety net that coca provides rather than the crop itself. Perhaps contrary to intuition, the regions in which coca is grown in Bolivia are not necessarily those best climatically suited to its cultivation (Painter, 1991: 27; Léons, 1997: 141). Rather, they are poor regions that witnessed vast labour migrations in response to drought and unemployment (Léons and Sanabria, 1997: 14). Policy-makers should therefore emphasise the motivations of peasant farmers rather than basing their programmes purely on economic models.[13] Such models, while useful in assessing possible alternatives, must leave room for flexibility.

As this article has shown, past alternative development programmes did not fail solely because of mismanagement or miscalculation (though these were significant contributing factors). Rather, there seemed to be little understanding on the part of policy-makers of the motivations of coca farmers and the reasons behind their dependence on coca. Policy-makers have assumed *ex ante* farmer co-operation in alternative development: since coca growing is illegal, farmers would naturally prefer to grow other crops. The assumption is that anyone working informally would prefer to enter the formal economy.

The frustration of policy-makers with alternative development is therefore understandable. Given *ex ante* farmer co-operation, the results of alternative development projects seem to suggest that farmers grow coca in order to supplement their income or because coca is more lucrative. As Bolivian Vice-President Jorge Quiroga Ramirez told *The Washington Post* in April 2002, 'We were handing over up to $2,500 to coca growers in the 1990s to have them switch to other crops, but what did they do? They turned around, spent the money, and then started growing coca again … The only thing we succeeded in doing was making coca the only subsidised crop in Bolivia' (Faiola, 2002).

The reality of coca farmers, however, is quite different. Peasant farmers indeed prefer working within the legal framework, but not at the price of starvation. Under what Roca (1997: 197) calls the 'intense drive of societies to reproduce themselves', those who lack economic opportunity and who are marginalised from legally recognised enterprises develop strategies for survival without concern for legal obstacles. The

12. This may contradict some neoliberal tenets and would, as already mentioned, require the support of trading partners. Still, a great deal is at stake in the competitiveness of alternative crops, and leaving them to the volatility of the open market seems potentially more counterproductive than their short-term protection.
13. Lee and Clawson (1993: 48-51) suggest that USAID programmes in particular were over-dependent on economic models.

evidence suggests that coca farmers grow only enough coca (regardless of their landholdings) to ensure their families' food security. They also grow other crops in conjunction with coca, using these mainly for subsistence since no markets exist for their sale. Coca is therefore a crop of necessity that can only be replaced with long-term planning, active involvement, and contingency mechanisms.

In much the same way, past alternative development programmes have assumed the existence of markets for promoted substitute crops. Experience suggests, however, that these markets need to be developed and protected, and that infrastructures and institutions should be created to support bringing alternative crops to market. Agroyungas, CRDP, and other alternative development programmes have offered coca farmers unviable and insecure alternatives; in other words, they offered no real alternatives.

Alternative development can and should be made to work for the elimination of coca and the simultaneous development and empowerment of peasant coca farmers. The lessons of past experiences suggest that the process of reducing the dependence of Bolivian farmers on coca cultivation will be long and will require the active involvement of the coca farmers. To do this, alternative development should be integrated into Bolivia's long-term development strategy, providing the type of long-term vision and dedication that will be required for its success. The alternative development agenda should be located within the country's overall economic development strategy rather than within its drug war strategy. In time, alternative development will reduce farmer dependence on coca, perhaps helping also to diversify the Bolivian economy and boost growth.

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