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Dr S Buckland and Mr H Ellis
Dioxin Action Plan
Organochlorines Programme
Ministry for the Environment
PO Box 10-362
Wellington

31 January 2002

Dear Dr Buckland and Mr Ellis,

Dioxin Action Plan: public consultation

WWF - the global conservation organisation - welcomes the government's consultation on the Dioxin Action Plan.

WWF is the largest conservation organisation in the world, with over five million supporters. We work in 96 countries where we focus on key environmental issues that affect people and wildlife. Our mission is to stop the degradation of the planet's natural environment and to build a future in which people live in harmony with nature by conserving the world's biodiversity, ensuring that the use of renewable natural resources is sustainable, and by promoting the reduction of pollution and wasteful consumption.

This letter sets out WWF's views on the government's consultation on the Dioxin Action Plan.

Section numbers below correspond directly to the Dioxin Action Plan.

1. Introduction

1.1. Dioxin is very difficult to detect and its distribution is uneven throughout the country, which implies that uncertainty about dioxin figures could be significant. The level of uncertainty should be clearly mentioned in the plan. To make sure that actions are pointed towards the right target, regular monitoring of dioxin sources should be set up to adjust any inaccurate values on the current status of dioxin emission and stock in New Zealand. Dioxin is a term that refers to a family of toxic compounds containing carbon and chlorine atoms joined together.

Summary of the New Zealand science on dioxin

1.1.2. WWF is primarily concerned with the effects of dioxin on the environment and on wildlife. The plan mentions that the background levels of dioxin in New Zealand are generally low when compared to other countries, and that there is minimal risk to wildlife from background exposures to dioxin, with the possible exception of coastal marine mammals such as Hector's dolphins (*Cephalorhynchus hectori*) and New Zealand fur seals (*Arctocephalus forsteri*).

WWF urges the New Zealand government to address in more detail risks to wildlife from exposure to dioxin. New Zealand's wildlife is a vital part of our natural heritage. Some species such as Hector's dolphin do not exist anywhere else in the world. The population of Hector's dolphin is

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Mr David Young, Mr Buddy Mikaere





classified as endangered by IUCN and dioxin hazards represent an additional threat to the many already affecting this species. Furthermore, among the 24 species of albatross found around the world, 13 breed in New Zealand of which 9 are endemic. Many surveys estimate the level of dioxin in albatrosses nesting on remote Midway Island in the Northern Pacific to be hazardous. The high position of these animals in the food chain makes them vulnerable to dioxin because the toxins accumulate in their fat tissues. This could lead to effects on the health of their offspring. This has been shown in other species. The most extreme cases result in lethal concentrations.

New Zealand is in a unique situation in terms of its wildlife, supporting many rare and endemic species. Therefore it is particularly important to address the effects of dioxin on wildlife in the Dioxin Action Plan.

1.1.3 and 1.1.4. Very low levels of dioxin were measured in retail foods. WWF is concerned about products such as seafood being imported from other countries where dioxin levels may be significant. Such products can result in high levels of exposure which would contribute to the reduction of the margin of safety recommended by World Health Organisation (WHO) to protect human health. This margin of safety is judged by the Ministry of Health to be small for New Zealanders. WWF recommends the establishment of an inventory of imported foodstuffs which are likely to contain high levels of dioxin and inform systematically consumers on the potential risks faced.

WWF's view is that while levels of dioxin in New Zealand are low relative to other countries this does not mean that the levels are safe and without risk to health. This should be a significant consideration when proposing action to reduce dioxin levels.

1.2 WWF fully supports the objectives of New Zealand's action on dioxin but would like to add the following key points which have not been clearly or fully mentioned in the plan:

Different sources

WWF recognises that dioxin discharges to air are probably the main pathway to population exposures but recommends that all discharges of dioxin, not only to air but also on to land and to water be addressed. No sources should be neglected as they could represent a significant amount over a long period of time. They are also linked together and a reduction of the emission to air could result in an increase of discharge on to land. The issue of wastewater treatment and land contamination should be clearly addressed in a National Action Plan. Nothing is mentioned about contaminated sewage sludge and incinerator ash disposal.

The New Zealand government should seek the total elimination of dioxin rather than restricting proposals to the reduction of emissions, and therefore the plan should address all potential sources. An Action Plan for dioxin discharge on to land and into water is required as soon as possible.

Exchange of information

New Zealand should develop with other countries an effective, open and continuously updated network of information on dioxin (including new techniques for detection, health effects, processes of elimination, alternative practices to reduce emissions) to allow efficient exchange of data. The outline



for such a network should be included in the final Dioxin Action Plan as it could represent a valuable tool in the immediate future.

2. Taking action on dioxin

2.1. Stockholm Convention

WWF calls on the government to improve the Dioxin Action Plan to meet New Zealand's obligations under the Stockholm Convention on Persistent Organic Pollutants (POPs), which aims to protect human health and the environment from POPs. The Stockholm Convention seeks the elimination or restriction of production and use of all intentionally produced POPs such as organochlorine pesticides and polychlorinated biphenyls (PCBs), and continuing decreases working toward elimination of emissions that produce POPs such as dioxin and furans.

The first target of the Convention consists of 12 POPs¹, for which New Zealand's position is relatively good compared to other countries. Among the 12 POPs identified only dioxin and furans have not yet been banned. New Zealand's Dioxin Action Plan therefore needs to include actions that address all of New Zealand's obligations under the Stockholm Convention.

According to the Convention, New Zealand must:

- Identify **all sources** (air, land and water) and **stocks** of dioxin and always identify **products/new products** that may contain and release dioxins. The current Action Plan only addresses the issue of discharges to air i.e. it does not include anything about land and water contamination, and it does not include proposals to search for new products that might contain or release dioxin.
- Promote measures, including **best available techniques** and **best environmental practices** – this point is particularly important for industries, for which the plan requires no action. WWF is extremely concerned about the lack of proposals in this area and wishes to see proposals in this area included in the plan. For example, the development of a code of conduct to reduce the production of dioxins would be an appropriate first step.
- Where feasible, **eliminate total releases** of dioxins – the plan of action only focuses on the reduction of dioxin emissions and does not foresee other future measures to seek total elimination.
- Schedule action and implementation. No deadlines for implementation and no modelling, monitoring or evaluation to foresee the effectiveness of the plan have yet been defined.

The Dioxin Action Plan does not adequately address these major points. It is therefore important that additional actions are proposed that will better meet New Zealand's obligations and allow it to ratify the Stockholm Convention as soon as possible.

¹ Aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene (HCB), mirex, toxaphene, polychlorinated biphenyls (PCBs), DDT, dioxins and furans.



WWF urges the New Zealand government to take appropriate steps to meet its obligations under the Convention so that it can ratify. New Zealand, seen as a green country throughout the world, has a strong interest in combating the threats presented by toxics by ratifying the Convention, demonstrating New Zealand's broader and ongoing interest in securing a green and clean environment. It could also take an international leadership position by leading discussion for the future development of the Convention including the identification of other POPs to increase the number targeted.

2.2 Dioxin policy at a national level

WWF supports the Dioxin Action Plan at a national level but recommends that particular support be provided to local authorities that have significant dioxin problems to ensure that sufficient tools and resources are available to implement the plan effectively.

3. Why should we take action on dioxin

3.2 Exposure of New Zealanders to dioxin and 3.3 How dioxin travels from air to human

As mentioned in the plan, the exposure of New Zealanders to dioxin through food is likely to be relatively equal throughout the country as most of the population eat products from national supermarkets. However, other ways of contamination e.g. workers dealing with dioxin contaminated products and people living near factories discharging dioxin, also exist. Those New Zealanders who are more exposed than others and who would eventually exceed the daily intake set up by WHO should be identified and specifically targeted. The government must identify action to support communities having health problems resulting from dioxin exposure. Previous cases of sawmill workers or 245-T manufacturers illustrate the lack of measures and the inability of the government to take action.

3.4 Economic considerations

WWF recognises the importance of New Zealand's exports to the economy. Publicity about products contaminated with dioxins has the potential to cause a tremendous impact on New Zealand's export earnings as well as the nation's green image. To protect and enhance export earnings, the Dioxin Action Plan needs to ensure that products at risk are identified and that monitoring of dioxin residues in exported products is regularly completed and conforms to international requirements.

4. Sources of discharges of dioxin to Air

WWF would like to note the uncertainty of the figures is a cause for concern. WWF recommends a monitoring programme for all sources.

5. Actions



5.1 Landfill fires

WWF supports the proposed ban on landfill fires.

5.2 Domestic waste burning

WWF supports the proposed ban on domestic burning of waste – WWF is aware that this measure can be difficult to apply, especially in rural areas. WWF suggests the establishment of incentive schemes or the application of penalties through regulations in the Dioxin Action Plan.

It is more difficult to enforce regulations in rural areas as burning can be scarce and unevenly distributed and therefore difficult to police. WWF suggests the development of educational materials on waste minimisation, recycling and the encouragement of disposal in controlled municipal landfills. In the first instance, groups of people such as farmers should be specifically targeted.

5.3 Municipal waste incineration; 5.4 Medical waste incineration ; 5.5 Other waste sources

WWF supports the proposed limit on discharges of dioxin to air but only for existing medical waste incinerators and for the hazardous waste incinerator. WWF opposes the suggestion of setting up an upper limit on municipal waste incineration as other more sustainable techniques of waste management should be developed, such as recycling or waste reduction programmes. Furthermore, incineration not only releases dioxins into the air but also creates ash which is very difficult to dispose of. Alternatives to incineration should be considered rather than establishing National Environmental Standard (NES) setting an upper limit on discharges from future potential municipal waste incineration.

6. Other than waste disposal

6.1 Fuel combustion

WWF does not agree with the proposed guidelines for industrial fuel combustion. The plan requires no action for this category which represents more than 13% of the total emission of dioxin in New Zealand.

WWF believes that this category should be as closely involved in the reduction programme as the public sector. WWF is extremely disappointed that polluters representing more than 13% of the total dioxin emissions are not included in this plan.

Potential solutions to reduce emissions from industrial wood and coal burning identified in the plan such as baghouse do not constitute suitable methods because dioxin would simply be trapped in ash. Nothing is mentioned in the plan about ash disposal and treatment. All sources of dioxin should be included in the Dioxin Action Plan to ensure that reductions in one sector do not result in increases in another.

The Action Plan should prioritise the gathering of information from other countries through an information exchange network when there is a lack of information in New Zealand, notably on contaminated wood burning. Monitoring is time consuming and not necessary to support action



when, as mentioned in the Action Plan, one study has already shown that burning of contaminated wood releases 10 times more dioxins than virgin wood.

WWF recommends that the Dioxin Action Plan systematically includes the development of the best available techniques and the best environmental practices to reduce dioxin emissions for industrial fuel combustions. The first step should be to ban the use of contaminated wood as fuel. Small changes in current practices could result in significant reduction of dioxin emissions.

Concerning domestic fuel combustion category, WWF believes that the Dioxin Action Plan cannot rely only on educational materials to reduce dioxin emissions. This action is only based on the voluntary principle which, while important, cannot be expected to solve the problem alone. Other complementary effective actions should be developed such as regulations on new enclosed wood burners to ensure the most efficient elimination of dioxin emissions.

WWF is particularly concerned about the lack of effective and efficient actions in the plan to reduce dioxin emissions from fuel combustion, which represents one third of the total emissions in New Zealand.

6.2 Metallurgical production and processing

WWF supports the actions suggested by the plan. It is clear that New Zealand needs further information on its foundries in order to reduce dioxin emissions. However, the lack of information should not be used as a reason to delay real actions: the best available techniques and the best environmental practices should be developed and enforced by non-ferrous metals foundries as soon as possible. A code of practice should encourage industries to reduce to a minimum the entry of “dioxin-raw material” such as plastic or chlorine containing products in their furnaces as briefly mentioned in the plan.

WWF supports the ban on discharge of dioxin to air of burning insulated copper but the Plan should mention the percentage of copper in the non-ferrous industries in order to estimate if the ban of burning insulated copper will have a benefit on the reduction of the discharge of dioxin to air by this category.

6.3 Other sources

WWF supports the proposals for crematoria.

WWF supports the proposals for accidental fires. However, WWF would like to point out the fact that by definition, accidental fires can occur at any time and discharge significant amounts of dioxin to air, which may total far more than the average 7% identified by the dioxin inventory for NZ.

Organisational information

Full contact details are shown on our letterhead as part of this submission. As per the submission form, the additional information you require is:

- WWF is an environmental group



- We have thirteen employees in New Zealand and 3,700 worldwide.
- We have 5000 supporters in New Zealand and five million supporters worldwide

Summary

WWF welcomes the government's consultation on the Dioxin Action Plan. WWF is pleased to note that there are some very positive points in the plan, such as the ban on landfill fires and domestic waste burning. If effectively enforced, WWF believes that these measures should help to reduce dioxin discharges to air and have also a positive impact on emission of other pollutants to air.

However, WWF believes that the plan is very weak at many levels and that overall is not an efficient tool to reduce significantly discharge of dioxins to air. Too many proposed actions consist of monitoring or education materials which, while important, are not adequate mechanisms on their own to reliably reduce emissions. The lack of specific proposals for industrial fuel combustion and metallurgical production and processing, which represent almost 20% of the total emissions, is unacceptable.

WWF recommends that the Dioxin Action Plan include:

- All New Zealand's international requirements on dioxins under the Stockholm Convention. All sources of dioxins should be identified as soon as possible and a more holistic approach including discharge to air, on to land and into water should be considered
- More detailed consideration of the impacts on people and wildlife and most notably a consideration of the health impact and potential support for communities affected by dioxin contamination.
- Actions to limit dioxins emissions from industries. Codes of conduct and regulations should be part of the measures.
- Participation and leadership within a worldwide network of information about dioxin
- Regular monitoring programmes to control the accuracy of current dioxins emissions, to find out the potential benefits of the Action Plan and to continuously look for new products containing or producing dioxins.
- Educational materials detailing how dioxin are produced, what the health effects are, and how people can reduce emissions by adopting small changes in their daily life habits.

It is a real and serious concern that it is almost impossible to find food products (meat, dairy and vegetables) completely free of toxics in New Zealand. WWF looks forward to seeing the government's response to our submission and the publication of a Dioxin Action Plan that is significantly stronger than the current proposal.

If you have any queries or would like to discuss any of these points in greater detail please contact Chris Howe at WWF New Zealand.

Yours faithfully



Chris Howe
Conservation Director

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Research Officer