any of our readers are likely to be surprised by this special issue of MANUSHI devoted exclusively to the routine abuse of animals in "scientific" experiments. MANUSHI has never so far taken any note of animal rights issues At a personal level, I am not even a vegetarian nor do I claim mucl knowledge or understanding of the animal world.

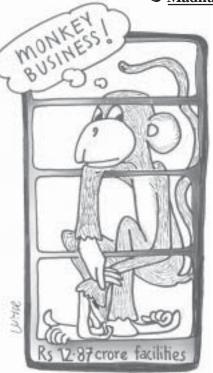
This special issue is motivated by the very same considerations that lea us to undertake a similar exercise or the aftermath of the Tehelka expose on defence deals (Issue No 128) MANUSHI stepped in only at the poin when we felt that the whole matter wa being distorted out of shape by interested parties with active help from the media — all so that the rea issues at stake could be covered in dense fog and those involved in wrong doing could be protected and allowed to continue misusing thei powers. We tried in a small way to separate the chaff from the wheat, and bring back attention to the actua issues and threats facing our nation and society.

Something similar seems to be happening with the manner in which influential voices within the mainstream media are handling the exposés regarding the corruption and mismanagement in our science labs.

## **Misleading Stereotype**

Till very recently, we too were influenced by the media portrayal of animal rights activists as extremist fundamentalists who are against all animal based experiments *per se*. Prominent voices in the media have accused them of acting like storm troopers disrupting valuable research for human welfare. We were jolted out of this view and were forced to question this stereotyping when a large bunch of articles critical of the state of affairs in our science labs, along with supportive photographic

# Shooting the Messenger The Use and Abuse of Animals in Science Labs O Madhu Kishwar



evidence, reached MANUSHI. Most of these reports have been prepared by members of the government appointed Committee for the Purpose of Control and Supervision of Experiments on Animals (CPCSEA). This Committee came into existence way back in 1964 to ensure that experiments on animals are performed with due care and humanity. (See CPCSEA history on page 41). However, like many government appointed committees, this institution

Each one of the CPCSEA reports expose specific cases of abuse, corruption, gross mismanagement and total mockery in the name of scientific experiments. remained inert for long years. Some years ago Maneka Gandhi took charge of it and galvanised it into a powerful instrument for enforcing some accountability on the scientific community involved in conducting experiments on animals.

## At Great Personal Cost

All of the current CPCSEA nominees who carry out inspections are well placed professionals in their own right in diverse fields. All of them have developed a great deal of expertise through long years of working with animals as well as studying the latest advances in scientific methods in animal based experiments. Their work with CPCSEA is unpaid labour of love done at great personal cost-both in terms of time and money. In addition, many of the members work hard to raise funds for animal welfare. This is neither a career option for them nor a route to political advancement or clout.

What came as a total surprise reading the large number of well documented case studies sent to us by the inspection teams nominated by the National Committee of the CPCSEA was that contrary to media projection, not one of the members, including the much maligned Maneka Gandhi, have argued that animal tests be banned altogether. Each one of their reports expose specific cases of abuse, corruption, gross mismanagement and total mockery in the name of scientific experiments. None of these articles are based on hearsay. They are all products of concrete investigations and provide graphic details of what was found wrong in specific laboratories.

They provide a shocking revelation of what ails biomedical research in India and the enormous waste and cruelty that is happening in the name of scientific experiments and how Indian scientists are not able to maintain even elementary hygiene in their labs, leave alone adopt the commonly accepted ethical and professional standards considered mandatory in good scientific establishments the world over.

# **Corruption and Quackery**

In the last two years CPCSEA personnel have visited 467 laboratories across the country. Their reports describe how disease and dirt are commonplace; euthanasia and analgesia are regarded as unnecessary expenses and therefore, scarcely practised. More often than not, scientists, impatient with drawing small amounts of blood from a large number of animals, prefer to bleed an animal to death on the pretext of having a 'sufficient amount of blood'. Most worrisome of all, the animals were found afflicted with such severe diseases due to needless torture, malnourishment and the abominable filth in which they are made to live that the experiments being conducted on them are not likely to have much validity.

The offending labs include prestigious research institutions of our country, such as the All india Institute of Medical Sciences, Maulana Azad Medical College, National Institute of Immunology, Delhi and National Institute of Virology, Pune. There are detailed references to the state of affairs in these and other important labs in the pages that follow. Not surprisingly the conditions in university labs and smaller research establishments are The WHO has banned the Sheep Brain Vaccine but it is still being manufactured for anti rabies treatment in India even though it is outmoded and very painful and unsafe for human beings who are given these shots...This when a safe and effective alternative-the Tissue Culture Vaccine is already available in India...

even more appalling. The pictures accompanying these articles show that these accounts are not likely to be exaggerated.

The pressure to do animal experiments to legitimise all medical cures as the only way of "standardising" traditional medicines has become very intense due to the WTO pressure on India to adopt the patents regime as well as the new and growing international demand for herbal cures. As a result, even old companies producing well established *ayurvedic* medicines have taken to making a pretence of animal based trials. Just to give one instance, the team found the multi million **Zandu Pharmaceuticals**, an *ayurvedic* 

The Sheep Brain Vaccine is made by a grotesquely cruel method: a hole is drilled into the skull of a fully alive sheep to inject the rabies virus. The sheep develop paralysis in 7-14 days and are then killed by decapitation and their brains 'harvested' for antibodies to the rabies virus. medicines producing company spending next to nothing on upkeep of animals but making a farce of it all by practices such as keeping 48 living and dead mice together in a single polypropylene cage with hardly any food between them, scuttling over each other. This when most genuine *ayurvedic* cures have been tried and tested on human beings for centuries. So clinical trials need not necessitate torturing animals in such crude ways.

If the level and quality of research being done in the premier institutions of our country is indeed what the following reports reveal, then we are really in deep mess and ought to sit up and take notice.

# **Constuctive Interventions**

The CPCSEA reports do not stop at mere criticism, they suggest measures for improving things, rather than demand that all research labs conducting animal tests be shut down. Many of the CPCSEA volunteers are also involved in constructive activities like running shelters for abused, discarded and sick animals. In their reports, they documented have carefully improvements carried out in a select few labs as a result of their inspections and recommendations. (For details see report: The State of Animal Houses/ Laboratories in the Country. See also pages 21-25, as well as 34-35 as well as inside cover at the end of this issue).

Unfortunately, the improvements carried out are few and far between in comparison with all those laboratories which have failed to respond to suggestions and directions for fixing things. This is not surprising considering the callous attituted of the government, notedly the Health Ministry which seems to encourage malpractices rather than act to control them. For example, despite the persistent campaign by the CPCSEA the NTV or Semple Vaccine is still being manufactured for anti rabies treatment even though it is outmoded and very painful and unsafe for human beings who are given these shots. This is shocking considering that a much safer and more effective alternative--the Tissue Culture Vaccine (TCV) is already available in India and is being used all over the world.

The NTV is made by a grotesquely cruel method: a hole is drilled into the skull of a fully alive sheep to inject the rabies virus. The sheep develop paralysis in 7-14 days and are then killed by decapitation and their brains 'harvested' for antibodies to the rabies virus. The resulting vaccine, banned by WHO, is administered in the stomach of the person bitten and has side effects ranging from asthma and nose bleed to paralysis.

In February 2002 the Supreme Court, acting on a Public Interest Litigation filed by a petitioner O.P.Tehlan, asked the Ministry of Health at the Centre to consider banning the producion of the sheep vaccine. brain Curiously, governmental bodies (Indian Council of Medical Research and Department of Biotechnology) have shown a curious reluctance to switch over from NTV to TCV, periodically asking for lengthy "phase out" periods to continue production. This despite the fact that the National Dairy Development Board of India which already produces the more advanced and safe Tissue Culture Vaccine has agreed to amplify its production to meet existing needs (For details see page 34-35).

## The Scientists' Version

The articles in the following pages make it amply clear that the CPCSEA has looked into the scientific value of work in these laboratories and worked hard, both through the Courts as well as personal initiative, to improve their functioning. These articles make a simple case that science establishments should not be allowed to get away with outmoded and redundant tests carried out under barbaric conditions, flouting all scientific norms and procedures. (See "Indian Scientists Use Outmoded and Discarded Tests" pages 27-35).

We did not wish to publish just the CPCSEA side of the story. Therefore, we sent all the material to one of India's eminent scientists Dr. Pushpa Bhargava (who also happens to be a member of MANUSHI Editorial Advisory Board.) asking him to help us get the appropriate experts to comment on the reports we are publishing. He, like many others, has so far been openly critical of CPCSEA work on inspecting laboratories. Dr Bhargava has agreed to obtain responses to this material from known experts. However he, wanted more time for this work. Since the material sent by the CPCSEA filled up the entire issue, we decided to invite all the named labs and scientists to respond to these articles in the following issues of Manushi. We do hope they will send us their version so that we can carry forward this debate. We would only be too happy if these charges are proven wrong and the scientists concerned can demonstrate with concrete evidence that their labs are functioning according to wellestablished professional norms.

We would only be too happy if these charges are proven wrong and the scientists concerned can demonstrate with concrete evidence that their labs are functioning according to well-established professional norms. Those of our readers who disagree with the facts or analysis in this issue, are also welcome to send their responses and rejoinders to MANUSHI so as to promote an informed debate on the subject and help evolve an effective strategy to bring about necessary improvements in our scientific institutions.

## **No Concrete Refutations**

Over the last few years, the exposés into the malfunctioning in scientific labs in India have generated a good deal of media controversy, with a large number of journalists and others jumping in the fray to defend the accused research labs. However, so far we have not yet seen any concrete refutations responding to the specific charges of the kind that are made through the articles we are publishing. Most of what we have read by way of rejoinders are emotive outbursts alleging that the CPCSEA exposure of and attempts to stop malpractices in science labs is malafide, that these people are antiscience and, therefore, are jeopardising advancement in medical research.

Praful Bidwai's article in Vol 19, Issue 23 of *Frontline* entitled "The Case for Animals in Research" is fairly representative of the critiques that have emanated from all those who have taken up cudgels on behalf of science labs. I have chosen it for detailed analysis because it presents in a compact form most of the arguments marshalled by those in the media or from the scientific community who have risen to defend the conduct of labs accused of callous disregard of all scientific norms.

# Who is Anti-Science?

Bidwai's article opens with an assertion that the CPCSEA is a threat to scientific advancement while giving a total clean chit to the accused labs. To quote him: "Animal rights activists are falsely counterposing humane ethics to good science. The Committee for the Purpose of Control and Supervision of Experiments on Animals must be reformed if Indian science is not to be wantonly harmed." This when even the Supreme Court has passed numerous strictures on the state of affairs in some of these labs.

Thereafter, Bidwai goes on straight to attack his real target: "The CPCSEA, ever since it was reconstituted in 1996 under Maneka Gandhi as Minister of State for Environment and Forests, has attracted attention not so much for 'supervision' its of animal experiments, not for laying down criteria for their 'control', as for unleashing a series of confrontations with the country's scientific laboratories, especially in the biological sciences." Mr. Bidwai chooses to deliberately overlook the fact that CPCSEA inspection teams have had to enter into confrontations and battle it out with science labs only because they are denied access and obstructed in their inspections.

The latest such fracas took place on September 28, 2002 when a CPCSEA team went to inspect the Delhi based National Institute of Immunology (NII). The team consisting of Amita Singh, Professor Jawahar Lal Nehru University, Sonya Ghosh, Reader in the College of Vocational Studies, Delhi University, Anil Nauriya, Advocate Supreme Court and a nominee of the NII, were prevented from taking photographs and completing their inspection. Sonya in her F.I.R to the police alleges that she was physically attacked by Dr Subeer Majumdar of NII and her camera sought to be snatched from her because she wanted to film evidence of sick and underfed monkeys. The CPCSEA team alleges that 37 monkeys had died from 1998 onward from TB and out of 400 entries

Many major systems of understanding the complexities of the human body, ways of healing and medication the world over have developed without torturing animals.

71 have tested positive for TB. Many were killed off after testing positive. They are reported to be underfed and terribly underweight, suffering from continuous infections and reinfections.

Mr. Bidwai's version is that the CPCSEA inspectors "exceeded their brief and barged into the animal house without proper authorisation" and "grossly exaggerated the prevalance of tuberculosis among the monkeys - 90 per cent plus, when only two of the 200 plus animals were infected .... "He is factually incorrect about CPCSEA figures as the above paragraph shows. Moreover, all CPCSEA members did carry their identity cards and authorisation. However, Mr. Bidwai does not dwell on the specifics. Instead, he offers us a string of platitudes on how we should not hesitate sacrificing

Even if one were to fully concede that experiments on animals are essential for advancement in biological sciences and admit that many important medical cures have come about as a result of animal experiments, is it unreasonable to demand that these experiments be conducted with care and scientific precision? animals for the advancement of science and human welfare.

Nowhere does Praful Bidwai's article answer or even take note of the enormous number of specific charges levelled with concrete evidence against these labs by the **CPCSEA** inspecting teams comprising of known experts in the field. Instead, it projects the CPCSEA nominees as anti-science cranks who wish to "forcibly stop all animal experiments, as people allegedly inspired by 'obscurantist or theological dogmas', who wish to forcibly impose personal, individual morality on to the larger society including vegitarianism." Some CPCSEA members may well be practising vegetarians but there is no evidence that anyone of them, including Bidwai's pet target Maneka Gandhi, has ever proposed banning meat eating through law or any other coercive means.

## **Incredible Distortion**

Bidwai distorts in incredible ways the motives involved in CPCSEA members' painstaking attempts to bring about accountability and efficiency in the Indian research establishements. Using very far fetched free association instead of logic, he falsely tries to equate the CPCSEA efforts to combat cruel and unscientific practices with the criminal acts of some Hindutvavadis such as those who were involved in the brutal killing of five Dalits in Jhajjar (Haryana) for the alleged crime of skinning a cow. To quote Bidwai: "It is impossible to separate such [meaning CPCSEA] agendas from the obnoxious Hindutva premise, so starkly stated by the VHP in the Jhajjar context, that a cow is more precious than a human being !" Even if we agree with Bidwai's premise that "Human life is more precious than animal life," it does not automatically follow, as Bidwai would have us

believe that "Science would not have established the foundations of anatomy and physiology, nor understood the processes of life, including the circulation of blood, or the basis of immunity and vaccination, without the work of William Harvey, Louis Pasteur, Edward Jenner and Joseph Lister, who used animals as well as human cadavers." This is a typical Eurocentric view of the world showing utter disregard for major advances in science made in other parts of the world, including India.

Many major systems of understanding the complexities of the human body, ways of healing and medication the world over have developed without torturing animals. However, even if one were to fully concede that experiments on animals are essential for advancement in biological sciences and admit that many important medical cures have come about as a result of animal experiments, is it unreasonable to demand that these experiments be conducted with care and scientific precision that includes taking adequate care of the animals while they are being experimented upon? Is it unscientific to demand that animals be kept well fed in a clean environment so that they are free from disease ? Does one become an obscurantist by insisting that scientists should avoid needless and sadistic forms of torture — if not for the sake of animals under captivity, at least for the sake of practicing "good science" according to the guidelines laid down by respected professional bodies of scientists?

### Laloodom in Science

Mr Laloo Yadav overnight became an object of contempt and derision once he and his government were implicated in the infamous fodder scam. In that particular case, the worst that Lalooji and his colleagues-inThere is no reason why the doings of our science labs, if they are in violation of all laws and codes of professional conduct should not be subjected to a thorough scrutiny and audit.

corruption did was to steal huge sums of funds in the name of supplying fodder to some existing and many non-existing animals in a government run farm. However, they at least left the animals alone — did not subject them to more cruelty than exaggerating their numbers, underfeeding the existing animals and over pricing the fodder supposedly bought for them. If Laloo's activities could cost him his job as Chief Minister, including some days in jail and facing a prolonged, though farcical inquiry, there is no reason why the doings of our science labs, if they are in violation of all laws and codes of professional conduct should not be subjected to a thorough scrutiny and audit.

# CAG and Court Strictures Versus Pious Platitudes

As pointed out in the following reports, the Comptroller and Auditor General (CAG) has passed severe strictures on the financial affairs of many of these labs (See pp.10-11and 17-18). The Supreme Court too has had to intervene to check cases of

The Comptroller and Auditor General (CAG) has passed severe strictures on the financial affairs of many of these labs. The Supreme Court too has had to intervene to check cases of abuse. abuse. (See pages 23-24, 26, 35). All those who genuinely want India to contribute towards scientific progress, should be demanding that the labs accused of unprofessional conduct or corruption by the CAG be subject to thorough scrutiny so that they stop malpractices and produce good research. Instead of doing that, Mr Bidwai demands that CPCSEA be removed from the scene or rendered impotent. His answer to revelations of abuse and corruption are pious homilies like the following:

"Ethically, it is defensible to use animal experimentation responsibly, rationally and humanely – because it produces results that are in the larger interests of humanity...the central issue is, can and do [animals] suffer?...The empirical answer is yes, and we must minimise that suffering. Adherence to this criterion in animal experimentation is in the overall interest of human beings... This can be, and has been, done, over the years by researchers by following the 'Three Rs' formula developed by zoologist M.S. Russell and microbiologist R.L. Burch in their book The Principles of Humane Experimental Technique: The three Rs are: replace animals by in-vitro methods where possible; reduce the number of animals in an experiment by more rigorous statistical treatment of data; and refine the experiment so as to cause less pain and distress. These three Rs have been adopted the world over as good laboratory practices... They have also tried to minimise the pain animals suffer. India's better laboratories follow the 1992 Guidelines for Care and Use of Animals in Scientific Research developed by the Indian National Science Academy(INSA)...[requiring that] animals have to be housed in a clean, comfortable, airconditioned environment — a facility denied to most of the human staff! There is a case for *improving* these practices, not banning them."

I hope, Mr. Bidwai does not imagine that the clean, comfortable and air conditioned environment mandated for experimental animals is proof of needless pampering of animals denied to human staff at the behest of animal rights activists! Those who wish to follow the methods of western science, better learn to emulate their professional rigour as well. Or else take the trouble to discover less expensive ways of doing research. In any case, the abysmal state of most of our labs is not due to shortage of funds, which are being wasted in plenty, as the following reports establish, but due to callousness and corruption.

### **Case for Improvement**

The CPCSEA has been demanding exactly what Bidwai recommends: That there is a case for improving the conduct of our labs as the following articles amply demonstrate. The difference is that the CPCSEA inspection teams have put in years of hard work against heavy odds to demonstrate that the science labs in India are routinely violating the "three Rs" formula and therefore, producing very little worthwhile research output. By contrast, Mr Bidwai and others like him want us to believe that all is by and large well simply because they says so — and that too not on the basis of even cursory investigations but simply because in his view raising issues of corruption and mismanagement in research institutions amounts to obstructing scientific advancement!



Interestingly, Mr Bidwai himself admits in the very same article that:

"until 10 years ago, there was no systematic regulation of animal experimentation in India. Chaos prevailed, as did shoddy, bad, often inhuman practices. This needed a corrective. In 1992, this was provided by the INSA's 'Guidelines'... The better laboratories in India follow these guidelines".

Does Mr Bidwai provide any evidence that the moment INSA issued its guidelines, everybody, or most, fell in line? If INSA had indeed insisted on enforcement of its "guidelines" to stop the "shoddy, bad, often inhuman practices" (to use Mr Bidwai's own words), there would have been a similar uproar against it as is taking place against CPCSEA. No one even heard of any such determined campaign by INSA in the early 90's. How then did the scientific

Those who wish to follow the methods of western science, better learn to emulate their professional rigour as well. Or else take the trouble to discover less expensive ways of doing research. community get reformed overnight from following "shoddy, bad, often inhuman practices" to suddenly becoming professional ethical and competent? Did someone waive a magic wand?

The truth is, there would have been no need for CPCSEA if the professional bodies of scientists had done their job satisfactorily and behaved like research institutions, rather than torture hovels.

### **Cure: Ministrify CPCSEA ?**

Bidwai concludes his article by leaving no one in doubt about his real agenda:

"... the CPCSEA with its negative attitude formulated draft rules in 1998 which would have completely blocked animal experimentation ... the new rules too are implemented whimsically...The Committee has no steady attachment — and hence no accountability - to any Ministry of the Government of India. It...has moved in recent years from the Ministry of Food and Agriculture, to Environment and Forests (MoEF), to Social Justice and Empowerment, then to Culture, and on to Statistics and Programme Implementation, and again back to Food and Agriculture... It is now with the MoEF ... This situation must be reformed ... This means that its composition must be altered... Its secretariat must be... placed under an appropriate Ministry such as Science and Technology".

How negative or obstructive are the 1998 CPCSEA drafted rules can be judged by our readers by referring to page 41. Bidwai's reform prescription has a superficial reasonableness about it when read quickly, until you consider the fact that in today's world of corrupt and venal politicians and ministers of the kind that thrive in abundance in our

country, Mr Bidwai has chosen to direct his ire at a politician who has been accused of many things, but never of corruption, even by her worst enemies. The most common charges against Maneka Gandhi are that she is rude, rough mannered and very impatient. Even bureaucrats who have worked with her, faced her ire and turned against her, have never accused her of corruption or inefficiency or using her office for personal aggrandisement. She is one of the very few politicians in India who tries to follow each issue she takes up to its logical conclusion - no matter what the cost she has to pay for it, including loss of her ministerial office. She recreated the CPCSEA to give it real teeth after she took change of it in 1996 and has used it with all the authority she can muster.

Since people in India are not used to any laws being taken seriously and imposed with determination, she became a terror for all those who fell under CPCSEA's jurisdiction. Her commitment to the cause of animal rights can be gauged from the fact that no matter which ministry she was shunted to, she insisted on taking CPCSEA with her. That is why "the Committee has no steady attachment". This in Bidwai's eyes means "no accountability to any ministry of the Government of India." As if government ministries are functioning with accountability and have real experts running their affairs!

Before her, CPCSEA was a toothless tiger. That is why no minister or bureaucrat wanted charge of either the CPCSEA or the Animal Welfare Division. After Maneka gave it strong powers to police research institutions, many politicians and bureaucrats want to grab that Comittee because it can now be used as a weapon of extortion. I wonder if Mr. Bidwai realises that by asking that the Chairwoman, along with her team of committed people, be It is especially tragic that such gross and senseless abuse of animals is taking place in a society and culture that has a very deeply entrenched tradition of treating all forms of life as a manifestation of the divine.

replaced by someone else and the CPCSEA should be robbed of its autonomy, he is likely to reduce it to yet another government agency, manned by the usual kind of corrupt *sarkari* personnel who will use their powers to blackmail labs into sharing the booty with the in inspectorate, rather than improving their functioning? Corruption and good science are not likely to go together.

### **Inter-Connectedness of Life**

It is especially tragic that such gross and senseless abuse of animals is taking place in a society and culture that has a very deeply entrenched tradition of treating all forms of life as a manifestation of the divine. Our ethical and cultural heritage does not teach us to treat the world of animals as being distinct and separate from that of humans by a rigid doctrinal wall constructed by influential ideologists in the West who have traditionally held that animal life is

This is not a case of "religion" teaching us blind obedience and fear of some distant God, but our culture's ways of subtly reinforcing reverence and respect for all forms of life and all manifestations of nature, animate as well as inanimate. inferior to that of humans and, therefore, animals are on earth to be disposed off according to the whims of human beings with no consideration to their pain and suffering. The Indic tradition teaches us no such divide and has sought to inculcate reverence for all life forms, including those that may appear frightening or ugly by associating our gods and goddesses with different animals, birds and even reptiles.

Who can think of Ganesh without his inseparable companion – the naughty, ladoo-nibbling mouse? Who can worship Shiv and yet treat the garland of serpents he wears with horror? Can Krishna be worshipped without his companion cows? The goddess of learning Saraswati always appears with her swan. Vishnu and garud are likewise inseparable. Which Ram bhakt can look down with disdain at the monkey god Hanuman who commands as much reverence as Ram himself? The list of such enduring and revered associations between humans and animals, between animals and the divine is endless. It has taught us not to treat our human incarnation with arrogance, for who knows in our next birth what form and shape we may be born into?

This is not a case of "religion" teaching us blind obedience and fear of some distant God, but our culture's ways of subtly reinforcing reverence and respect for all forms of life and all manifestations of nature, animate as well as inanimate. It is puzzling why all those who perform daily worship of these divinities from the animal world have not shown outrage or protest against the needless brutalisation of animals in our science labs, especially considering that our scientists have a very poor record in finding internationally accepted new cures through torturing animals or via any other experiments.