ALLIANCE FOR SUSTAINABLE & HOLISTIC AGRICULTURE (ASHA)

Food • Farmers • Freedom

www.kisanswaraj.in

July 18th 2016

To:

The Chairperson & Members,
Genetic Engineering Appraisal Committee (GEAC),
Ministry of Environment, Forests & Climate Change,
Government of India.

Dear Chairperson and Members of GEAC,

Sub: Unscientific and fraudulent testing of, and claims around DMH-11 transgenic mustard hybrid – Inadequate testing of parental lines – All 3 GMOs in question being Herbicide Tolerant - Demand that you reject the application *in toto* – Investigate all the regulatory lapses – Share biosafety data in public domain – reg.

Greetings! Through this letter and all the attached presentations which we are using for our meeting with GEAC on July 18th 2016, we wish to place on record our serious objections to DMH-11 transgenic mustard hybrid R&D, its testing and also numerous failures on the part of regulators to discharge their mandate of "protecting environment, nature and health in connection with application of gene technology". We would like to state that this GMO would not have reached this stage of regulatory approvals and processing nor would it have (mis)utilized crores of rupees of taxpayers' monies if only the regulators were rigorous in executing their mandate, transparent in their functioning and independent in action. Given that all the three GMOs in question are Herbicide Tolerant (HT) GMOs (with the use of GURT technology), that too for a crop for which we are a Centre of Diversity, the application should not have been processed by the regulators at all. Further, the matter of risk assessment regime related to GMOs as well as HT crops specifically is awaiting the Supreme Court's pronouncements on the matter and is *sub-judice*.

As concerned citizens, we are faced with a situation where the GEAC has been withholding information from the public domain, protecting the interests of crop developers at the expense of public interest. Based on a small set of documents and data that we have access to, we present our evidence, analysis and arguments. Even this is enough for us to surmise that there are many issues fundamentally alarming, inaccurate, fraudulent, unscientific and unsafe, to demand that the GM mustard application be rejected *in toto*. This pertains to all the 3 approvals being sought, for environmental release of transgenic mustard lines and hybrid DMH11, as applied by the crop developers: "(a) Growing and multiplication of mustard (B. juncea) parental lines containing event bn3.6 (Bar-barnase genes) and event modbs 2.99 (bar – barstar genes) for hybrid seed production; (b) Producing seed of mustard hybrid DMH-11 using the parental lines Varuna bn 3.6 and EH-2 modbs 2.99 for cultivation by the farmers; (c) Use of the two events – bn 3.6 and modbs 2.99 for introgressing the bar-barnase and bar-barstar genes into new set of parental lines to develop next generation of hybrids with higher yields, disease resistance and quality traits".

We believe that when biosafety data (including raw data) is finally drawn out for public and independent scrutiny, there can only be more reason for consternation at the progress that this GMO has been able to make till now.

We take GEAC seriously as a regulatory body constituted under a statute – we take its mandate of protecting the environment and regulating GMOs seriously; we also seriously expect GEAC to do a thorough job in executing its mandate. If we are reconciled to a regulatory body not doing its job thoroughly, that would be a real disrespect of the body and of the law under which GEAC was formed (EPA 1986's 1989 Rules).

Unfortunately, our findings bring to question citizens' faith in the dependability, integrity and rigour of GM regulators as well as the scientists applying as crop developers.

In this letter, we present our main objections to GMOs in general but this entire application and biosafety dossier in particular – the annexures have detailed data, explanations, evidences and references.

1. DMH-11 R&D AND TESTING HAVE BEEN RIGGED:

(a) The GMO approved for R&D in 2003 is not the same as being assessed now! DMH-11 was a hybridization product of ***EH-2 barnase line X Varuna barstar line*** between 2003 and 2006. However, when DMH-11 re-appeared after a break of few years in 2010, for Biosafety Research Level (BRL) I testing, it had become a cross between ***Varuna barnase X EH-2 barstar line***. This is scientifically unacceptable, that the same dossier is being maintained for different GMOs and events. From all materials available in the public domain, it appears that GEAC members have been kept in the dark about such a swapping of parents.

(b) In the regulatory pipeline, as far as we are aware, no GMO got into BRL trials straightaway by this kind of maintenance of single biosafety dossier, and condensed all testing into 3 seasons. No event selection trials have ever been discussed in any GEAC meeting. We object to this unacceptable haste and shortcuts of regulatory processes which compromises scientific rigour.

(c) The overall claim and basis on which this GMO is being considered for approval for commercial cultivation is that field trials showed overall average higher yield over "national check" Varuna by 28.4%, and if this GMO is commercialized, India's edible oil import bill will come down. We prove with evidence (Annexure 1 and 2) that:

- DMH-11 was tested against low-performing varieties released many decades ago, whereas the extant robust scientific system has scientific guidelines laid down for varietal testing which requires hybrids to be tested against hybrids and latest high performing comparators – hundreds of public sector scientists put themselves through such assessment, whereas a transgenic variety has been allowed unscientific and unreliable standards;

- DMH-11 was tested in ways that are contrary to GEAC decisions and permission letters and the developers and regulators are both responsible for this expediency and lack of rigour. GEAC meetings have clearly asked for the GMO to be tested against non-transgenic hybrids but this was not done, violating the regulatory decision *(we are aware that the Applicant is explaining this away as the difficulty in handmade isogenic hybrids being used for testing, whereas we are emphasizing that given that this GMO's main claim and basis is yield increase, it should have followed the AICRPRP protocols rigorously of comparing itself with recommended Hybrids to prove its claim)*;

- DMH-11 was tested in just 8 locations in all, and only in 2 locations for 2 seasons, based on which claims of benefits are being made - in all other locations, trials were one-off, for one season each; in Zone III, trials were done only in one location that too at BRL I stage only. This is obviously inadequate to assess the real performance of a variety that is sought to be released for farmers' use;

- The one year that DMH-11 was tested with another non-transgenic hybrid also included as a comparator, the other hybrid out-yielded DMH-11 (2006-07). Even here, DMH-11's claimed yield advantage against other Checks was just 20.3% (in fact, it could be just 17%, as reported in Progress Report of NDDB-Delhi University Biotech Project for the period of March 2010 to February 2012,

submitted to the Academic Advisory Committee under Point "2. Biosafety analysis of transgenic hybrid DMH-11");

- Environmental safety testing, bypassing rigorous agronomic evaluation, cannot be considered as a valid basis for yield claims related to DMH-11, which is the main basis for the introduction of this GMO;

- We further show that the overall average *28.4% higher yield is also miscalculated by presenting a value derived from average of averages*!;

- We also show that results of field data as reported by DRMR has been presented *with changed values when submitted to GEAC (increased by 15.3%)*, for BRL I 2nd year data (2011-12) from 2 two locations where trials took place. These two manipulations (average of averages and changed values) together have notched up the so-called yield benefit of DMH-11 by around 7.5%, in addition to the wrong protocols used;

- We also present analysis to show that there is significant inconsistency in Yields as derived from data recorded during the trial for each entry, of plant stand, average number of pods per plant, average number of seeds per pod and average weight of 1000 seeds AND the seed yield in kilos per hectare reported for each entry. While we don't expect such "derived yields" to be the same as reported yields of each entry in the trials, the mismatch shows no similarity or trend whatsoever. There is also a clear inconsistency between biomass weight and yields. Either the data on these ("vegetative, reproductive and survival biology") parameters has been collected wrongly through unscientific sampling or the yield data being reported has been created to favour DMH-11, or it is a case of both (incidentally, both sets of data were collected the same day, at the time of harvest!) – **either way, the entire testing should stand null and void**.

- We also present zone-wise and year-wise evidence of the performance of extensively tested cultivars (more locations and more years of testing, with greater reliability of the average figures of yields of such cultivars which should have been rightly used as the Comparators for DMH-11 testing also) – both hybrids and varieties – and such evidence clearly shows that DMH-11 is not outperforming such cultivars as claimed, and therefore, yields increasing and India's oil import bill coming down are unfounded claims.

We end this section by summing up that any testing of DMH-11 so far for its yield advantage claim has been unreliable in its protocol as well as reporting of data. Further, ICAR's DRMR in an RTI response stated that ***DRMR has not conducted any trial and the data received by DU/NDDB staff was passed to DRMR for onward transmission to DUSC/GEAC (Annexure 3). DRMR also provides data to show that DMH-11 GM mustard hybrid is NOT higher yielding.***

The expediency and haste in testing raise serious questions about the scientific competence or integrity of the crop developers. The fact that GEAC has allowed the GMO to proceed this far based on unscientific claims, rigged protocols and violated decisions pointing to incompetence and unscientific bias, is deeply alarming. The Developers' claims that national check was used is SIMPLY FALSE and we challenge the regulators to show a single trial of GM mustard where a proper check approved for national and zonal level evaluation has been used for BRL testing based on which higher yields are being claimed.

2. DMH-11 AND ITS PARENTAL LINES ARE HERBICIDE TOLERANT GMOs AND THE REGULATORS SHOULD NOT HAVE ENTERTAINED THIS APPLICATION:

The developer did not apply for DMH-11 and its parental lines as Herbicide Tolerant crops, and used the garb of higher yield claims of DMH-11 through hybridisation, which (claims) were also never put to rigorous evaluation. This GM mustard is Herbicide Tolerant and we believe that it is a Trojan Horse for other HT crops. It is shocking that the GEAC has not done its appraisal as it should have done for a HT crop. In fact, India does not have a

risk assessment regime that can assess HT crops' impacts. Worldover, there is a huge debate underway about herbicide usage and the negative fallouts, and the decisions with regard to Glyphosate are well known by now. ***This is a rejected hazardous technology being sought to be dumped in India***. Given that Bayer Agro Sciences, a Multi National agrochemical and seed corporation has an almost 100% monopoly on the glufosinate market in India with brands like to which DMH 11 and the parental lines are resistant to, in addition to the fact that patent on bar gene is held by Bayer, one is forced to suspect that this particular GM crop is also being pushed at the behest of multinationals which will have a huge market out of this, especially in a scenario with increasing glyphosate-related bans. It is very important to note at this point that the effect of Glufosinate on honeybees in the context of HT crops has not been studied, and Mustard is the major food source in Northern India for these pollinators during the winter season. The impact on honey bees will not only impact mustard yields but also that of almost 70% of all crops in North India as bees are the major pollinators for all this. There is a concern about a major potential impact on farm productivity as well as food security apart from the health, environmental and other socioeconomic impacts from the usage of this herbicide tolerant GM Mustard. The disaster that is in store for India if it makes an unwise decision about HT crops is very apparent on various fronts. The rejection of the earlier ProAgro/Bayer GM mustard proposal was mainly on this count, as some of the GEAC members might recall. We give additional evidence and arguments on this as **Annexure 4**.

This is also a clear case of going against repeated recommendations of various committees against herbicide tolerant crops in India. The majority report of independent experts in the TEC had recommended a ban on HT crops in India, and this matter is still sub-judice while GEAC is entertaining an application of HT crops for commercialization. DMH-11 needs to be rejected outright for being a HT crop.

3. **GEAC TRYING TO TAKE A DECISION ON 3 GMOS BY LOOKING AT ONE INCOMPLETE BIOSAFETY DOSSIER**:

The application that GEAC is considering is for "environmental release" (commercial cultivation) of 3 GMOs – Varuna barnase, EH-2 barstar and DMH-11 hybrid. However, only one dossier has been submitted – it is also seen that biosafety tests, analyses and reports are incomplete for all the 3 GMOs. For instance, pollen flow studies and crossability studies have not been undertaken for the parental lines. Further, statistical analyses should have been presented specifically for each GMO in different tests. However, this has not been done. We believe that it is unscientific and unhealthy that one application for 3 different events or GMOs is entertained by GEAC, and in this case, we have already shown that one dossier has been maintained for 6 GMOs in reality! It is clear to us that GEAC cannot take a decision on all 3 GMOs based on the current data supplied – the testing is incomplete and analysis missing. Each GMO presents its own particular risks and therefore, in this case-by-case approach that the regulators have, they should have prescribed a comprehensive risk assessment regime for each GMO, with its own biosafety dossier built for regulatory decision-making. Regarding the third sub-application for "approval for use of the two events bn 3.6 and modbs 2.99 for introgressing the bar-barnase and bar-barstar genes into new set of parental lines to develop next generation of hybrids with higher yields, disease resistance and quality traits", from what we understand of the regulatory system in India, this should have been applied for with RCGM as fresh research!

4. **DMH-11 TESTING ABSOLUTELY INADEQUATE AND INCOMPLETE:**

We have already pointed out above how the yield related results were rigged and we are using the term responsibly. It is also clear that DMH-11 was never put through some important tests – chronic health safety testing for example. Or its impacts on Indian Systems of Medicine, given that mustard is used in Ayurveda quite extensively in various ways. Similarly, the impacts on honey production and the honey industry by rigorous assessment on impact on honeybees. Experts have been asking for proteomics, transcriptomics and metabolomics related studies which have not been prescribed by GEAC so far and have not been undertaken for DMH-11 either. Only one sub-chronic toxicity study has been taken up, and no animal feeding studies. No risk assessment in the context of cold pressed oils, which have found increasing demand and acceptance from

consumers, has been taken up. We contend that there are big gaps in the risk and impact assessment taken up on this transgenic mustard.

5. **DMH-11 TEST PROTOCOLS ARE UNSCIENTIFIC**:

As demonstrated amply in **Annexure 5** pertaining to different studies, we prove that unscientific protocols without any rigour of safety/risk assessment were used in DMH-11 testing and it is also clear that the crop developers prescribed convenient protocols for themselves, rubberstamped by the regulators. This got confirmed through an RTI response given by Delhi University's CGMCP. For instance, the methodology used for impact on honeybees. Or other beneficial insects. Or, for studying aggressiveness and weediness. Or, the fact that Shattering Trait is recorded with a "-" or Yes or No, ignoring the fact that this is an important trait to have been tested for in detail. Lack of standardization of protocols for tests is very apparent in tests for Pollination Behaviour, for instance, with one Centre studying pollination behavior in fertile plants, another in sterile plants and a third in both, with the sample sizes being different in different centres etc. These are just illustrations.

We also have analysis to show that conclusions have been drawn wrongly, despite data from the studies showing otherwise. For instance, the crop developers asserting that Male Sterility breakdown was not seen in any of their extensive observations is an outright lie when data from the trials (Pollination Behaviour) and observations of the CCC visits show otherwise.

As in the case of Bt brinjal, we conclude that with DMH-11 too, the lacunae in biosafety assessment can be summarized as: required tests not done; test protocols not scientific; test data being shoddily recorded or even just doctored; test results being analysed wrongly (in several cases, no statistical analysis exists); conclusions being drawn and asserted contrary to results. In all of this, regulators continue working in an incompetent, apathetic, secretive and conflicted manner. This kind of functioning allows crop developers to claim that they were only following guidelines, after setting convenient and unscientific protocols for themselves. This is not acceptable. The appraisal should have had wise and responsible policy directives applied, followed by needs and alternatives assessment before proceeding on processing the applications being received.

6. **VERY BASIS OF ADMITTING THIS GMO APPLICATION UNFOUNDED AND QUESTIONABLE:**

Regulators in the field of transgenics are supposed to use standard risk assessment frameworks, which necessarily have to include a ***realistic assessment of the claimed benefits*** because decision-making is supposed to involve an assessment of benefits as well as risks, in addition to evaluation of all existing options for an intelligent decision. However, we find that in the case of DMH-11, the regulators have not even begun asking the crop developer basic questions around the claimed benefits **(Annexure 6)** – will heterosis in one variety increase yields to an extent that India's oil imports will come down as is being claimed? What are the base conditions for the same and do they exist? Is that borne out with the real life experience of DMH-1 which is a non-transgenic hybrid with heterotic vigour that came from the same crop developers? Have regulators studied why farmers actively rejected DMH-1 and what impact did DMH-1 have on oil imports after its release in 2009-10? What about the existence of several other hybrids in the market and oil import bill not coming down? Have other safer and established alternatives to increasing yields of oilseeds in general and mustard in particular been evaluated? Has any assessment been done of how DMH-11 fares in comparison to highly successful, large scale farmer-level experiences of System of Mustard Intensification, for example? Have experiences of other countries which have CMS-based rapeseed mustard hybrids doing quite well been documented and assessed? It is a matter of serious concern that GEAC allowed this application to move forward this long without such basic questions being asked. ***We reiterate our long standing demand once again that need assessment and alternatives assessment should precede the processing of any application for open air release of GMOs. Even this, after applying sensible policy directives to acceptance of an application in the first instance. This is after all fulfilling the mandate of GEAC/EPA 1989 Rules and the fact that the Committee has been renamed as an Appraisal body and an Approval body for a very valid reason.*** We also point out that benefit claim assessment should be rigorously taken up just as risk assessment should be rigorously taken up too.

7. **DMH-11: SERIOUS CONCERNS WITH MALE STERILITY AND HERBICIDE TOLERANCE**

i. It is clear from the data presented in the reports of field trials and the Central Compliance Committee's visits to field trials for monitoring that Male Sterility trait of Varuna barnase line is not stable, sometimes breaking down. In fact, the CCC reports of 2014-15 record it in all locations (Ludhiana, Nov.2014; Bathinda, Oct.2014; New Delhi, Mar.2015) even though Pollination Behaviour observations report this only from Ludhiana. This means the very basis for approval of DMH-11 needs to be examined thoroughly, since with such a breakdown, the purported advantage of prevention of self pollination, and possibility of heterosis will be affected. In what conditions does the breakdown happen, to what extent, with what implications? There is no data on how much of the yields, pod formation and seed setting in Varuna barnase is due to such Male Sterility breakdown and how much due to cross pollination. It does not appear that this question was verified by GEAC before allowing BRLII trials, or even before proceeding with 2nd Year BRLI trials.

ii. It is also clear that the Male Sterility trait will spread, affecting possibilities for farm-saved seed and subsequent crop performance. Intra-specific cross pollination is inevitable, given our smallholdings. This will most certainly have implications for the yields of mustard growers and does not augur well for the farm livelihoods of mustard farmers. We also argue that selection pressure does exist in favour of DMH-11, given the yield lure being promised and the use of herbicide tolerance trait/herbicide.

iii. Herbicide tolerance trait will also spread further and farmers will indeed use herbicide Glufosinate (which is disallowed as per the Insecticides Act right now in mustard) on their mustard crop in future, even though the crop developers coyly keep saying that "herbicide usage is not recommended". It is ridiculous to think that farmers won't use herbicides because the "crop developer has not recommended". Herbicide usage will have its own huge environmental and health implications for mustard growers and consumers. Such implications have not been assessed at all in the case of DMH-11.

iv. Cross pollination will be much higher than what is being projected – the protocol adopted for testing pollen flow does not assess the actual cross pollination levels, but only distance. In fact, the good seed setting observations in Varuna barnase is an indication of the cross pollination potential, as per the crop developers themselves.

8. **INFRINGEMENT OF RIGHTS OF CHOICE FOR FARMERS AND CONSUMERS:**

It is clear that any "environmental release" of DMH-11 (as the GEAC terms commercial cultivation) will leave no choices for farmers or consumers. This will irreversibly contaminate existing non-GM seed stock. Such a contamination will affect all farmers, and will immediately affect the organic status of organic mustard growers in particular. It will also impact all those organic farmers who use mustard seedcake as a soil amendment since organic regulation prohibits this too. The impact on honey producers will also be adverse. As far as consumers are concerned, they will also be left with no choices of knowing what they are consuming, given that no labeling regime is enforced in the country.

9. **NO LIABILITY REGIME IN PLACE**:

We have been demanding for a long time now that a proper liability regime has to be put into place for the risks and damages that are bound to arise from environmental release of GMOs and this is missing even now. Without having such a liability regime in place, how is GEAC even considering a commercial cultivation approval?

There are of course several other issues of concerns, including on the matter of **IPRs**: while GEAC has ascertained that patents are currently held outside for some genetic materials used, it is clear from the crop developer's statements elsewhere that some patents are held in India too. Further, several patents are also held by MNCs on the genes used. In any case, nothing prevents the crop developer from claiming those patents in future, or even assigning them off to other entities. It is clear from a reading of all existing materials that the government has not studied the implications of this from the perspective of farm livelihoods or even

criminalization of farmers (the infamous 'Percy Schmeiser' case where 'patent infringement' was 'found' involved GM canola using the same technology as DMH-11). It appears that developing and commercializing a HT crop, thereby controlling the farmers' choices through both seed and chemicals and profiteering on both counts, cannot be ruled out. Moreover, the use of a GURT technology clearly undermines farmers' interests.

10. **CONFLICT OF INTEREST DESTROYS PUBLIC FAITH IN REGULATION:**

Conflict of interest, which is repeatedly compromising scientific rigour in this field in India, has its ugly role to play in the entire story related to DMH-11. This includes the facts:

- that a scientist in the crop developer team, Dr Akshay Pradhan, who is involved in each stage of DMH-11 R&D and testing, is also a GEAC member (it is only now that he indicated that he will abstain);
- that Dr Deepak Pental, one of the main applicants is the head of the Research Advisory Council of DRMR supposed to oversee the trials and got to set his own test protocols;
- that DBT sits in meetings that decide to formulate a proposal, accepts the proposal, funds the project and also ostensibly assesses biosafety. Now, we have news reports of DBT's GEAC representatives declaring on social media that everything is conclusively safe about this GM mustard;
- that the head of RCGM in MoST is on the board of an industry-funded body ILSI and also gets commissioned to do safety studies as the then head of NIN and gets into biosafety assessment later on, and is also a GEAC member.
- That a PPP consortium with several private players called Biotech Consortium India Limited (BCIL) gets funded by taxpayers' funds in the DMH-11 project to prepare a roadmap for biosafety assessment and to prepare the dossier.

Why should the nation be asked to trust this set of scientists with clear conflicts of interest as regulatory decision-makers, to do comprehensive and rigorous risk assessment? Are there no other independent scientific experts in the country for such biosafety assessment, given that regulation is mainly about risk assessment and not just about efficacy of traits introduced?

11. **HAVE THE REGULATORS FAILED THE NATION?**

As we said earlier, we expect GEAC to perform its duty thoroughly, since the safety of food and environment of all citizens is at stake here. All the findings presented above raise serious questions about failure of the regulators.

Appealing to your integrity and scientific rigour, we ask GEAC members the following questions:

- Were GEAC members aware of all the serious irregularities including swapping of parental lines midway through the testing process, usage of wrong comparators and so on? If so, why were these issues not tackled earlier and how did the application get this far? Why, and on what basis, were permissions given for large scale field trials?
- If these issues were not noticed and debated earlier, is that because of failure to examine the biosafety dossier or reluctance to raise difficult questions or pressure to give clearance?
- Why would a sub-committee feel compelled to finish its job within 15 days, that too when the planting season was already underway?
- Why is it that the regulators don't even ask for raw data and get to study it and see if it is different from what is being reported, and whether further independent analysis is required?

- Why is it that regulators have ignored biosafety violations pointed out not just by civil society groups but by their own CCC teams during field visits? When will we hear from GEAC on action taken on complaint filed?

- Many GEAC members don't attend meetings and GEAC takes important decisions without even a decent quorum (with just 11-12 members out of 30+ members). Can a regulatory body like GEAC have (hurried) decision-making with such sparse attendance and participation?

- How can a GM regulatory body function without representatives from the Health Ministry, when the health of all citizens is at stake? Similarly, where are the representatives of AYUSH Ministry (other than being invited once)?

We daresay that among the public and concerned citizens, there is a great disappointment with the regulators. There are serious questions whether they are being brought under pressure to give clearances. We also have media reports indicating that some regulators are giving statements that everything about DMH-11 has been proven safe. We know that rigorous testing has been avoided by postponing risk assessment to "post-release monitoring" which show a pre-conceived mindset amongst the regulatory body that the current application has to be approved, irrespective of scientific fraud or risk – this essentially is experimentation on the citizens of India, both farmers and consumers.

We are aware that the GEAC members are not full-time members and are caught in their own research or administrative/bureaucratic work and have reason to believe that they give very little time to this role. This then does not fit well with the responsibility on hand of protecting citizens from the risks of gene technology (EPA 1989 Rules).

There are many examples of failure of regulators, whether it be the case of illegal introduction of Bt cotton, continued illegal cultivation of HT cotton, clearance to Bt brinjal without proper appraisal etc. The GM mustard biosafety dossier, the little that we were able to study, is an excellent illustration of violations and fraudulent procedures and claims, and the regulators have chosen to keep mum about it. GEAC is clearly compromising on its scientific mandate at the cost of environment, health of citizens and livelihood security of our farmers. As current members of GEAC, we believe that you are in a position to take corrective action and chart a different course, in view of the findings presented here. We ask you, are you ready to do so?

12. **RTI DATA ON GM MUSTARD CONTINUES TO BE WITHHELD:**

Given the massive set of issues with the DMH-11 biosafety dossier, it is not surprising that the Ministry of Environment, Forests & Climate Change wants to hide the biosafety data from public scrutiny, saying that it "will do everything that it is legally required to do". **The CIC orders of April 1st 2016 have not been complied with so far**. This is surprising given that the GEAC had conveniently proffered the minutes of its last meeting in a CIC hearing to show the Central Information Commissioner how keen it was to share information with the public! They are now seeking 90 days time from the CIC until after they finish their review **WHEREAS THIS ARGUMENT OF WANTING TO SHARE DATA AFTER GEAC FINISHES ITS REVIEW HAS ALREADY BEEN BRUSHED ASIDE BY THE CIC**. By now, if the regulators were serious, they could have shared all data publicly. By not doing so, they are putting a dent in their own credibility. Should concerned citizens have to resort to their own sleuthing to stumble upon the real story of DMH-11? This is unhealthy. What we present here is based on limited access to information (no health related matters have been analysed so far by us, for instance) and we have reason to believe that other serious discrepancies might be unearthed if data is put out for public scrutiny.

It is time that all documents and correspondence from the beginning pertaining to this GMO are put out into the public domain.

DMH-11 GM MUSTARD WILL TAKE AWAY OUR FARMERS' SOVEREIGNTY

We are alarmed at the lack of concern and the levels of complacency that the regulators have exhibited so far with this GMO application. The implications for farm livelihoods are serious with this male sterile, herbicide tolerant technology deployed herein. Leave alone the yield benefits claimed, farmers in fact are going to incur losses if they use farm saved seed, and lose their sovereignty if they don't. Non-GM neighboring farmers will also be forced to shift to external seed sources due to male sterility related losses and herbicide damage.

WE DEMAND:

Given all the scientific and independent evidence provided above and in supporting annexures which shows lack of scientific basis, rigour, competence, integrity and responsibility in the case of R&D and testing of DMH-11, and given that extremely successful and safe alternatives exist to improve mustard yields **(summed up in Annexure 7)**, we reiterate our demands for the following:

- Reject the current application *in toto* and immediately, for all 3 GMOs;
- Fix liability on crop developers for false/incorrect evidence provided willfully to regulators in addition to violations of biosafety norms laid down for field trials as shown in the civil society complaint to you and your own CCC reports – blacklist such applicants in the regulatory system;
- Put out all documents pertaining to DMH-11 R&D from its inception into the public domain immediately.

We request GEAC to record in full detail the discussions in this Special Meeting of the GEAC in its minutes, and put out the Minutes in the public domain, along with copies of all the presentations and this letter. We also await a detailed response to the various issues raised herein.

We end by reiterating once again that GM technology is a living technology that is imprecise, irreversible and uncontrollable. GMOs in general and this DMH-11 are unneeded, unwanted and unsafe. There is rejection of this GMO in particular as well as GMOs in our food and farming in general, by state governments, by scientists from various fields of expertise, from farmer unions, from consumer movements, from environmentalists and from ordinary citizens. It is apparent that the only way GM crop developers are able to move forward is through the kind of lax and bad-science-driven regulation that we are witnessing with regard to this GM mustard.

GEAC must indeed stop its business-as-usual approach and bring in a complete overhaul of the regulatory system or must contend with the serious loss of credibility and trust from the public.

Thank you.

Sincerely,

Kavitha Kuruganti
Mob: 08880067772

Kapil Shah
Mob: 09427054132

Dr Debal Deb
Mob: 09432674377

Ananthoo
Mob: 09444166779

Dr Sharad Pawar
Mob: 09820518757

Yudhvir Singh
Mob: 09899435968

Rajesh Krishnan (Mob: 07559915032)

Copy to: Shri Anil Madhav Dave, Minister for Environment, Forests & Climate Change, Government of India.