IN THE SUPREME COURT OF INDIA
[CIVIL ORIGINAL JURISDICTION]

WRIT PETITION (CIVIL) NO. 213 OF 2011 (N)

IN THE MATTER OF

DEMOCRATIC YOUTH FEDERATION OF INDIA
YOUTH CENTRE
DFYI KERALA STATE COMMITTEE OFFICE
UNIVERSITY ROAD
THIRUVANANTHAPURAM KERALA – 695034
(Represented by its Secretary, P.V. Rajesh)
.....Petitioner

Vs.

Union of India & others .....Respondents

COUNTER AFFIDAVIT FILED ON BEHALF OF THE FIRST RESPONDENT

I, Mrs. Vandana Jain, working as Director, in the office of Departemnt of Agriculture & Cooperation, New Delhi, do hereby solemnly affirm and state as under:

A. That I am working under the first Respondent in the above Writ Petition (Civil). I am fully conversant with the facts and circumstances of this case as disclosed by relevant records and file. I swear this Counter Affidavit for and on behalf of the first Respondent in this case.

PRELIMINARY SUBMISSIONS:-

1. That in the first instance it is submitted that the petitioner had filed the writ petition on 25 April 2011,

praying for issue of interim order for banning production and use of Endosulfan in the country and also passing an order directing Respondents not to oppose ban on Endosulfan globally in international conventions including Stockholm Convention on Persistent Organic Pollutants (POPs) in the context of the 5th meeting of Conference of Parties (COP) to Stockholm Convention during 25-29 April 2011.

2. That the 5th meeting of COP of Stockholm Convention has been held wherein a decision was taken to list Endosulfan in Annex A of the Convention with specific exemptions under Article 4 of the Convention which would lead to elimination of its production and use globally. Countries which avail of specific exemption under Article 4 of the Convention would have a maximum period of 11 years to phase out of production and use of Endosulfan. It is further submitted that COP having amended Stockholm Convention on POPs to list Endosulfan in Annex A to the Convention, with specific exemptions taking into account that use of Endosulfan in many countries needs to be replaced with suitable alternatives, and mindful of paragraph 1 of the Article 12

of the Convention relating to the rendering of timely and appropriate technical assistance, decided to undertake a work programme to support the development and deployment of alternatives to Endosulfan.

3. That the writ petition, the petitioners have made the main assertion that in not banning the pesticide Endosulfan in the country despite evidence of its harmful effects on environment and human health, the Respondents have failed to adhere to the precautionary principle (Principle 15 of the Rio Declaration of the Earth Summit) and, as a consequence, right to life (Article 21 of the Constitution) of citizens of the country has been infringed in deaths and crippling diseases caused by Endosulfan. As evidence of harmful effects of Endosulfan, the petitioners have cited assessments of its environmental impact carried out by some countries and also a study conducted in Kasargod district of Kerala by the National Institute of Occupational Health (NIOH) under the Indian Council of Medical Research (ICMR) carried out in 2002 at the instance of the National Human Rights Commission (NHRC). They have further alluded to a report titled 'Epidemiological study of health status of population of Kasargod district, Kerala' conducted under

the sponsorship of Government of Kerala during 2010-11. Based on this evidence, the petitioners have principally sought an order from Hon'ble Supreme Court directing Respondent No. 1 to ban sale of Endosulfan.

4. That pesticides play an important role in sustaining agricultural production of the country by protecting crops from pest attack and keeping pest population under control. Availability of safe and efficacious pesticides and their judicious use by the farming community is critical to a sustained increase in agricultural production and productivity. Pesticides are also useful in health programmes for controlling vectors responsible for diseases like malaria. However, pesticides have toxic properties and, therefore, need to be regulated. India has an established system to regulate use of insecticides under the Insecticides Act, 1968 (the Act). The import, manufacture, sale, transport, distribution and use of pesticides is regulated under the Act and the Insecticides Rules, 1971 (the Rules) framed there under with a view to prevent risks to human beings, animals, and for matters connected therewith. Under Section 5 of the Insecticides Act, 1968, a Registration Committee (RC) has been constituted which registers the pesticides for

import and manufacture in the country after satisfying itself regarding the efficacy of pesticides and their safety to human being, animals and the environment. The registration of pesticides is done by RC under section 9 of the Act after scrutiny of data on various parameters such as chemistry, bio-efficacy, toxicity and packaging to ensure efficacy and safety of the pesticide. Presently, 230 insecticides stand registered on regular basis for use in the country while 18 insecticides have been refused registration. As per provisions of the Act and Rules, each package/container of pesticides is required to have a Label and Leaflet duly approved by the Registration Committee furnishing information for guidance of the farmers. Use of registered pesticide for the purpose and in the manner as prescribed by the RC does not pose any hazard to human and animal health. No insecticide can be manufactured, stocked, sold or exhibited for sale without a license granted for the purpose by Licensing Officers notified by the State Governments as per the provisions of the Act. Insecticide Inspectors have the powers for search, seizure and prosecution for offences under the Act, including sale of prohibited or spurious pesticides.

5. That Endosulfan is an insecticide developed in the early 1950s. It is a broad spectrum insecticide and controls many important chewing and sucking pests in various crops. Three formulations of Endosulfan are registered in the country under the Insecticides Act, 1968 for controlling insect pests in various crops, i.e., rice, wheat, jowar, pulses, sugarcane, cotton, jute, maize, vegetables, tobacco, cardamom, tea, coffee, mango, cocoa, citrus, groundnut, mustard, safflower. India is the largest producer and exporter of Endosulfan. During 2009-10, domestic production was 9,800 metric tons (MT) (technical grade) and exports were 60% in value terms (US$ 40 million). Endosulfan is one of the largest used insecticide in India. Consumption of Endosulfan in the country was reported to be 3,333 MT during 2009-10. Annual worldwide use of Endosulfan is reported to be about 15,000 MT. Argentina, Australia, Brazil, China, India, Mexico Pakistan and USA represent major markets for its consumption.

6. That Science being dynamic, many new developments do come to the notice of the Government from time to time. Ministry of Agriculture keeps on

reviewing information available on insecticides by appointing Expert Committees or through the Registration Committee. On the basis of such reviews, 27 insecticides or their formulations have been banned for import, manufacture in the country while there are 67 pesticides which have been banned or severely restricted in some countries but are still used in India. Use of Endosulfan has been reviewed from time to time by several Experts Committees. Dr. S.N. Banerjee (the then Plant Protection Adviser) Committee in 1989 and Dr. R.B. Singh (the then Director, IARI) Committee in 1998 reviewed Endosulfan and recommended its continued use.

7. That the issue regarding use of Endosulfan in Kerala originated in the aerial spraying of Endosulfan in cashew plantation by Plantation Corporation of Kerala (PCK) reportedly since 1981. Several Committees were appointed from the year 2000 onwards to review effect of Endosulfan on human health and environment in Kasargod district of Kerala.

8. That Kerala Agriculture University conducted studies during 2001 mainly relating to Endosulfan residues in environment. It again constituted an expert team in

April, 2001 to study the environmental effects of aerial spray of Endosulfan in Kasargod district. Frederick Institute of Plant Production and Toxicology (FIPPA, later known as International Institute of Biotechnology and Toxicology), Tamil Nadu conducted a study in 2001 to evaluate Endosulfan residues in and around PCK cashew plantations. Another Committee under the Chairmanship of Dr. A. Achyuthan, an environmentalist, was constituted by Government of Kerala in February, 2001 for studying effects of Endosulfan on human population and environment pollution. The conclusions of these Committees were similar in that they could not confirm the link between use of Endosulfan and health problems observed. However, they recommended stoppage of aerial spraying of Endosulfan considering the topography of the area (undulating terrain with several water bodies and high degree of inhabitation near PCK cashew plantation). Later, a survey by District Medical Officer (DMO), Kasargod in Padre village during December, 2002 found slight increase in occurrence of disease pattern observed in the sprayed area when compared to the non-sprayed area. It also concluded 'disease pattern are same

in both areas. Hence detailed clinical study is required to prove the cause of the disease'.

9. That the National Institute of Occupational Health (NIOH), Ahmedabad, submitted two reports one in December, 2001 and the other in July 2002 on epidemiological study of school children in Padre village of Kasargod district. The report concluded that there was a higher prevalence of neuro-behavioral disorders, congenital malformation in female subjects and abnormalities related to male reproductive system in the study area and identified relatively high and continued exposure to Endosulfan as the most probable cause of health problems.

To examine the reports of NIOH, Dr. A. Achyuthan Committee, KAU and FIPPAT, and for safety assessment of Endosulfan, the Registration Committee constituted an Expert Group headed by Dr. O.P. Dubey, Assistant Director General (Plant Protection), ICAR. This Committee, while finding no link between use of Endosulfan in PCK plantations and health problem reported in Padre village, recommended a comprehensive, well designed and detailed health and epidemiological study in the entire cashew plantation area of Kerala.

While recommending stopping of aerial spraying of pesticides in PCK plantations, it also recommended that use of Endosulfan may be continued as per provisions of the Insecticides Act, 1968 (March, 2003).

10. That in view of lack of consensus amongst various experts on this issue, the Respondents constituted another committee under the Chairmanship of Dr. C.D. Mayee, the then Agriculture Commissioner, in 2004 to examine previous reports and to make recommendations regarding future use of Endosulfan. The Committee, in its report, recommended continued use of Endosulfan. It also recommended a detailed health and epidemiological study in cashew plantation areas of Kerala. While concluding that use of Endosulfan is not clearly linked to the alleged health problems in Kasargod district of Kerala, it recommended that use of Endosulfan may be kept on hold in Kerala considering the apprehensions in the minds of the public in Kerala. On the basis of the report of this Committee, the use of Endosulfan in Kerala has been already kept on hold vide Government of India notification dated 31.10.2006 as a precautionary measure till such time factors responsible for the health problems in village Padre are ascertained. The State

Government was requested to carry out the study. True copies of the Committee Report dated _____and notification dated 13.10.2006 are annexed herewith this Counter-Affidavit as **Annexure:R-1 and R-2** respectively.

11. That Endosulfan gets regularly assessed and evaluated by a group of experts at the Joint Meeting of Pesticides Review (JMPR) appointed by WHO & FAO. The evaluation conducted in 2006 observed as follows:

"Long term intake of residues of Endosulfan from uses that have been considered by JMPR is unlikely to present public health concern"

(JMPR-WHO/FAO 2006)

12. That the Indian Council of Medical Research (ICMR) under Ministry of Health & Family Welfare (MoH&FW) has constituted a Committee under the chairmanship of Director General, ICMR to examine the report (2002) by NIOH. This committee would also review available literature related to health effects and will suggest future course for research in the area of health effects of Endosulfan. The Committee constituted by ICMR met on 10.11.2010. It endorsed the excellent scientific work

done earlier by NIOH which was done for a specific purpose and covered only the school children and not the whole population. However, the committee recognized that a number of issues with regard to use of Endosulfan have to be settled through a detailed population based epidemiological study for which a draft protocol would be prepared by NIOH and finalized in consultation with Kerala Government and other stake holders minutes at **Annexure-R. 3 & 4**. It is further submitted that the writ petition primarily refers to the study conducted by ICMR's NIOH, Ahmedabad and presents the data from that report. It also refers to the recently concluded study by Calicut Medical College, Kerala. The Committee under Secretary, Department of Health Research & Director General, ICMR has been reviewing the results of this study. The Committee has many experts like Dr. P.K. Seth, Dr. H.N. Saiyed, Dr. P.S. Chauhan, Dr, A.K.T. Rau who all are not part of the government in addition to some ex-officio members like Agriculture Commissioner. The above mentioned Committee will also oversee the study proposed to be undertaken in other states through the local Medical Colleges. It has also been decided to form two sub-groups (i) Analytical Method Group and (ii)

Clinical Epidemiological Survey Group which will develop SOPs and protocols. Once the protocols are finalized, the local medical colleges will be asked to conduct the studies.

14. That it has been decided by consensus in 5th Conference of the Parties (COP) to the Stockholm Convention on Persistent Organic Pollutants held on April 25-29, 2011 to list Endosulfan in Annex A for elimination of its production and use globally. However, keeping in view Articles 12 and 13 (4) of the Stockholm Convention, COP has also made specific exemptions for use of Endosulfan for Parties that have notified their intention to produce and /or use it in accordance with Article 4 of the Convention for selected crops/pests.

15. That Article 13 (4) of the Stockholm Convention states that "the extent to which the developing country Parties will effectively implement their commitments under this Convention will depend on the effective implementation by developed country Parties of their commitments under this Convention relating to financial resources, technical assistance and technology transfer. The fact that sustainable economic and social

development and eradication of poverty are the first and overriding priorities of the developing country Parties will be fully taken into account giving due consideration to the need for protection of human health and the environment." Conference of Parties having amended Stockholm Convention on POPs to list Endosulfan in Annex A to the Convention with specific exemption taking into account that it has to be phased out and to be replaced by suitable alternatives and mindful of paragraph 1 of the Article 12 of the Convention relating to the rendering of timely and appropriate technical assistance decided to undertake a work programme to support the development and deploying an alternative to Endosulfan. Thus the Stockholm Convention has recognized the fact that developing countries like India require cost effective and safe substitutes to Endosulfan. This means that India and some other developing countries will be entitled to continue producing and using Endosulfan for a period of five years, which can be extended for a further period upto five years by COP, for crops for which the chemical is registered in India against specific pests. As about a year would be needed for ratification of this decision, the total maximum period

available for phase out of Endosulfan in the country would be 11 years.

16. That while there are alternative pesticides available, there is no detailed assessment available of suitability of such pesticides from the point of view of cost, potential health hazard, efficacy against target pests and such other factors as may be relevant including effect on honeybees (relevant for cross pollinating crops as Endosulfan is much less toxic to honeybees compared to other broad spectrum pesticides). Such assessment for Indian agriculture has become necessary in view of the decision taken in the Stockholm Convention. The respondents had constituted a Committee on 04.05.2011 for this purpose **Annexure-R.5**.

17. That now the Joint Committee appointed by Hon'ble Supreme Court vide order dated 13.05.2011 in writ petition (civil) No. 213 of 2011 "Democratic Youth Federation of India vs Union of India & Ors" headed by the Director General of ICMR and the Commissioner (Agriculture) has been entrusted to conduct a scientific study on the question whether the use of Endosulfan would cause any serious health hazard to human beings

and would cause environmental pollution. The Committee has been directed to submit its interim report within eight weeks from the date of the order and also suggest any alternative to Endosulfan.

18. That as a number of representations continue to be received from various quarters either for banning Endosulfan or for continuing its use, views of State Governments on the matter have also been sought by Respondents. True copy of the same is as **Annexure-R.6**.

19. That as there is an established system in the country to register and review pesticides including Endosulfan; as use of Endosulfan has already been put on hold in Kerala as a matter of precaution in view of health problems reported in Kasargod district till such time factors responsible for the health problems are ascertained; as JMPR assessment shows that long term intake of residues of Endosulfan is unlikely to present public health concern; as Hon'ble Supreme Court has appointed a Joint Committee to look into the health aspects and also suggest alternatives to Endosulfan and the inputs from this Committee could be the basis for

taking a fresh view on Endosulfan; as India has joined the consensus to phase out of Endosulfan under the Stockholm Convention; and as views of the State Governments have been sought by the Respondents on Endosulfan; the prayer of Petitioners for banning Endosulfan is unnecessary and, therefore, it is prayed by Respondents that the petition may be dismissed.

PARA-WISE REPLY:

With reference to para 1 of the writ petition it is submitted that Rio declaration is a set of 27 principles adopted at the culmination of United Nations Conference on Environment and Development (UNCED), informally known as Earth Summit, in Rio de Janeiro, Brazil on June 3-14, 1992. The Declaration represents a delicate balance of policy goals supported by developed and developing countries, reflected mainly in two sets of key principles without which the compromise would have collapsed. They are, on the one hand, public participation, the 'precautionary approach' and the 'polluter pays' maxim (principles 10, 15 and 16) which are considered to be essential by the developed countries. On the other hand, the developing countries insisted that the key principles include the 'right to

development, poverty alleviation and the recognition of 'common but differentiated responsibilities' (principles 3, 5 and 7).

Principle 15 (Precautionary Principle) quoted by the petitioners, says that *'In order to protect the environment, the precautionary principle shall be widely applied by the States* ***according to their capabilities.*** *Where there are threats of serious and irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing* ***cost-effective measures*** *to prevent environmental degradation.'* The phrases shown in bold are important considerations. In the present case, the Respondents have already put use of Endosulfan on hold in Kerala vide Government of India notification dated 31.10.2006 as a precautionary measure taking into account reported health problems in Kasargod district pending a detailed epidemiological study. It is further submitted that Stockholm Convention on Persistent Organic Pollutants (POPs) recognizes precautionary principle in Article 1 which is reproduced below:

> *"Mindful of the precautionary approach as set forth in Principle 15 of the Rio Declaration on*

Environment and Development, the objective of this Convention is to protect human health and environment from persistent organic pollutants."

Para 2 to 4 & 7: With reference to Para 2 to 4 & 7 of the Writ Petition it is submitted that -like all pesticides, Endosulfan gets regularly assessed and evaluated by a group of experts at the Joint Meeting of Pesticides Review (JMPR) appointed by WHO & FAO. The most recent evaluation was in 2006. It is worth recalling what JMPR experts have stated in recent years about Endosulfan **(Annexures-R.7A & R.7B):**

- Endosulfan is not carcinogenic i.e. it is not a cancer causing agent.
- Endosulfan is not mutagenic i.e. it does not cause any genetic damage.
- Endosulfan is not teratogenic i.e. it does not cause birth defects.
- Endosulfan does not cause harm to reproductive systems.
- Endosulfan is not genotoxic.
- Endosulfan does not bio accumulate in organs/tissues.

- Endosulfan residues, if accidentally enters the human/animal body, leave the body fairly quickly.

"No genotoxic activity was observed in an adequate battery of tests for mutagenecity and clastogenecity" (JMPR-WHO/FAO1998).

"Endosulfan and nine other chemicals with known or suspected estrogenic activity were tested in three assays.....there was no evidence from any of these tests that Endosulfan was estrogenic"

(JMPR-WHO/FAO 1998).

"Long term intake of residues of Endosulfan from uses that have been considered by JMPR is unlikely to present public health concern"

(JMPR-WHO/FAO 2006)

Periodical review of pesticides does result in the approved uses of pesticide concerned. However, it must be mentioned here that beginning 2006, US EPA has allowed Endosulfan to be used as a veterinary pesticide. In USA, Endosulfan is used as "cattle ear tag" to control ecto-parasites on both milk and beef cattle. The EPA phase out

proposal of Endosulfan has kept the "Cattle ear tag use" till 2016 (**Annexure-R.8**).

The concluding statement of risk evaluation of Endosulfan by Persistent Organic Pollutant Review Committee (POPRC) of Stockholm Convention reproduced below indicates that it has been primarily concerned with long range transport of Endosulfan and its persistence in colder regions of the world such as the Arctic:

"Endosulfan has been banned or restricted in a number of countries but it is still extensively used in other countries.

Endosulfan has been reported throughout the atmosphere of northern Polar Regions. Concentrations of endosulfan (isomers unspecified) from Arctic air monitoring stations increased from early to mid-1993 and remained at that level through the end of 1997. Unlike most other organochlorine pesticides that have decreased over time, average concentrations of endosulfan in the Arctic have not changed significantly during the last five years.

The rapid field dissipation of the endosulfan isomers is related to volatility and it is then subject to atmospheric long-range transport. Persistence, in particular in colder regions, and bioaccumulation potential are confirmed

through the combination of experimental data, models and monitoring results. Endosulfan is highly toxic to the environment and there is evidence suggesting the relevance of some effects on humans. However, the information on its genotoxicity and potential for endocrine disruption is not fully conclusive. Based on the inherent properties, and given the widespread occurrence in environmental compartments and biota in remote areas, together with the uncertainty associated with the insufficiently understood role of the metabolites which maintain the endosulfan chemical structure, it is concluded that endosulfan is likely, as a result of its long-range environmental transport, to lead to significant adverse human health and environmental effects, such that global action is warranted."

In its risk management evaluation POPRC recommended as follows:

"The POPRC of the Stockholm Convention has decided in accordance with paragraph 7 (a) of article 8 of the Convention, and taking into account that a lack of full scientific certainty should not prevent a proposal from proceeding, that endosulfan is likely, as a result of its long-range environmental transport, to lead to significant

adverse human health and environmental effects, such that global action is warranted.

A thorough review of control measures that have already been implemented in several countries shows that risks to health and environment from exposure to endosulfan can be significantly reduced by eliminating production and use of endosulfan. Global action on endosulfan will reduce more significantly harm to human health and the environment. In addition, control measures are also expected to support the goal agreed at the 2002 Johannesburg World Summit on Sustainable Development of ensuring that by the year 2020, chemicals are produced and used in ways that minimise significant adverse impacts on the environment and human health.

In accordance with paragraph 9 of Article 8 of the Convention, the Committee recommends that the Conference of the Parties to the Stockholm Convention considers listing technical endosulfan (CAS 115-29-7), its related isomers (CAS 959-98-8 and 33213-65-9) and endosulfan sulfate (CAS 1031-07-8) in Annex A with specific exemptions."

Use of a pesticide should be permitted only if the benefits outweigh the risks involved. The balance between risk and benefit will differ greatly under different socio-economic conditions and it is important for each country to study its own priorities when deciding which compounds may be used. It should not be influenced by decisions made elsewhere and on probabilistic considerations. It should be based on objective scientific criteria.

Accordingly, in the 5th COP to the Stockholm Convention on POP held during April 25-29, 2011 India emphasized on Article 13.4 of the Convention that "*The fact that sustainable economic and social development and eradication of poverty are the first and overriding priorities of the developing country Parties will be taken fully into account, giving due consideration to the need for protection of human health and the environment.*"

Recognizing the above fact, a decision was taken to list Endosulfan in Annex A of the Convention with specific exemptions under Article 4 of the Convention. Accordingly, COP-5 also adopted a decision to request the POP-RC to undertake an assessment of safe and cost effective alternatives to Endosulfan which will be

submitted to COP-6 to be held in 2013. This assessment would include information pertaining to technical feasibility, health and environment effects, cost effectiveness, efficacy, risk taking into account the characteristics of potential persistent organic pollutants as specified in Annex D to the Convention, availability, accessibility, and any other available information.

It is also relevant that the Conference of Parties having amended Stockholm Convention on POPs to list Endosulfan in Annex A to the Convention with specific exemption taking into account that it has to be phased out and to be replaced by suitable alternatives and mindful of paragraph 1 of the Article 12 of the Convention relating to the rendering of timely and appropriate technical assistance decided to undertake a work programme to support the development and deploying alternatives to Endosulfan. Thus the Stockholm Convention has accepted the fact that cost effective and safer substitutes to Endosulfan have to be developed and deployed.

India will accordingly submit to the Convention the information on chemical and non-chemical alternatives to Endosulfan for the uses identified as specific exemption in Annex A to the Convention which will be compiled and analysed by the Persistent Organic Pollutants Review Committee (POPRC) in its 7th meeting. Thereupon, POPRC will prepare a report on the safe and cost effective alternative to Endosulfan and will submit it to Conference of Parties at its 6th meeting for consideration.

India had earlier tabled many papers protesting against erroneous procedures followed by the Persistent Organic Pollutant Review Committee (POPRC) of the Stockholm Convention. India had opposed the inclusion of Endosulfan under the Convention in POPRC 6. However, in April 2011 meeting of Stockholm Convention, India has joined the consensus for phasing out Endosulfan. The report of POPRC on cost effective and safe alternatives will facilitate India to take a decision, following its domestic regulatory and legislative processes.

Para 5 & 8: With reference to para 5 & 8 of W.P. it is submitted that the National Institute of Occupational

Health (NIOH), Ahmedabad is a research institute under Indian Council of Medical Research (ICMR). It submitted two reports in December, 2001 and July, 2002 on epidemiological studies in school children in Padre village of Kasargod district, Kerala to NHRC. The report concluded that there was a higher prevalence of neuro-behavioural disorders, congenital malformation in female subjects and abnormalities related to male reproductive systems in the study area and identified relatively high and continued exposure to Endosulfan as the most probable cause of health problems. However, the report also mentioned that the physiography of Padre village had been a major factor responsible for continued exposure of the population.

It is submitted that two expert committees appointed by the Government of India under the Chairmanship of Dr. O.P. Dubey, ADG (Plant Protection), ICAR (2003) and Dr C.D. Mayee, the then Agriculture Commissioner (2004) had not agreed with the findings of the NIOH report on scientific grounds.

It is further submitted that the Indian Council of Medical Research (ICMR) under Ministry of Health & Family

Welfare (MoH&FW) has constituted a Committee under the chairmanship of Director General, ICMR to examine the report (2002) by NIOH (**Annexure-R.3**). This committee would also review available literature related to health effects and will suggest future course for research in the area of health effects of Endosulfan. The Committee constituted by ICMR met on 10.11.2010. It supported the NIOH report submitted to NHRC in 2002. However, the committee recognized that a number of issues with regard to use of Endosulfan have to be settled through a detailed population based epidemiological study for which a draft protocol would be prepared by NIOH and finalized in consultation with Kerala Government and other stake holders (minutes at **Annexure-R.4**). It is further submitted that the writ petition primarily refers to the study conducted by ICMR's NIOH, Ahmedabad and presents the data from the report. It also refers to the recently concluded study by Calicut Medical College, Kerala. The Committee under Secretary, Department of Health Research & Director General, ICMR has also been reviewing the results of this study. The Committee has many experts like Dr. P.K. Seth, Dr. H.N. Saiyed, Dr. P.S. Chauhan, Dr, A.K.T. Rau who all are not

part of the government in addition to some ex-officio members like Agriculture Commissioner. The above Committee will also oversee the study proposed to be undertaken in other States through the local Medical Colleges. It has also been decided to form two subgroups (i) Analytical Method Group and (ii) Clinical Epidemiological Survey Group which will develop SOPs and protocols. Once the protocols are finalized, the local medical colleges will be asked to conduct the studies.

It is further submitted that now the Joint Committee appointed by Hon'ble Supreme Court vide order dated 13.05.2011 in writ petition (civil) No. 213 of 2011 "Democratic Youth Federation of India vs Union of India & Ors" headed by the Director General of ICMR and the Commissioner (Agriculture) has been entrusted to conduct a scientific study on the question whether the use of Endosulfan would cause any serious health hazard to human beings and would cause environmental pollution. The Committee has been directed to submit its interim report within eight weeks from the date of the order and also suggest any alternative to Endosulfan.

A fresh view can be taken on Endosulfan based on inputs from the Joint Committee appointed by Hon'ble Supreme Court.

Para 6: With reference to para 6 of the W.P. it is stated that the directions to the Respondents by the National Human Rights Commission (NHRC) quoted by the Petitioners were addressed to the State Government of Kerala. It is submitted that NHRC, taking suo-moto cognizance of newspaper report titled 'Crippled Kerala villagers cry for endosulfan ban' published in 'The Hindustan Times' dated 16.11.2010 gave two sets of recommendations in its proceedings held on 31.12.2011. One set of recommendations, quoted by the Petitioners was made to the State Government of Kerala. The other set of recommendations was made by NHRC to Government of India (Department of Agriculture & Cooperation, Ministry of Environment and Forests and Ministry of Health). These recommendations and response of Respondents to them is given at **Annexure-R.9A.** NHRC has held meetings on 18.02.2011 and 19.04.2011 with Secretaries of concerned Departments/Ministries to discuss implementation of its recommendations. The State Government of Kerala has

outlined various measures taken by it to NHRC **(Annexure-R.9B).**

Para 9 & 12: With reference to para 9 and 17 of the W.P. it is stated that the reply is same as to para 1 of the WP (para 10 & 11 are not given in the WP).

Para13 & 14: Paras 13 and 14 are matter of record.

Comments on Grounds

A to D: With reference to grounds mentioned from A to D it is submitted that the petitioners have referred to only Principles 3, 15 and 16 of Rio Declaration but when declaration is understood in totality, specifically after going through Principles 2, 5, 6, 9, 11and 12, it is very clear that socio-economic conditions of a country, specially developing country, have to be taken into consideration and a consensus has to be reached among member countries before taking any global decision which is applicable to all countries. The relevant Principles are at **Annexure-R.10**.

Further, the use of Endosulfan in Kerala has been already kept on hold vide Government of India

notification dated 31.10.2006 (**Annexure-R.2**) as a precautionary measure till such time factors responsible for the health problems in village Padre are ascertained.

E & C[2]: With reference to grounds mentioned from E to C2 it is submitted that the following considerations are relevant in the context of environmental and human health concerns in context of Endosulfan:

1. There is overall weight of evidence from in-vitro and in-vivo screening tests that Endosulfan is not an endocrine disruptor. It is reported that Endosulfan is either carcinogenic or mutagenic. There is no evidence to suggest that Endosulfan bioaccumulates.
2. It is noteworthy that a number of countries that have banned this chemical have done so as a precautionary measure due to suspected long term effects on human health. Use of Endosulfan has been put on hold in Kerala also as a precautionary measure. A number of countries that have banned Endosulfan have done so as they have very low level of agricultural activities.
3. Pest management in tropical conditions is a more complex phenomenon. It is essential to use broad

spectrum pesticides like Endosulfan which are effective for a range of pests and which can be easily used by farmers. Multiple applications of narrow spectrum pesticides will be very difficult given the levels of education and awareness amongst farmers, besides being expensive and ecologically undesirable. Endosulfan has been extensively used for its bio efficacy and site specific targeted mode of action and is known to be safe to honey bees in comparison to other insecticides.

4. Adverse effects of Endosulfan in Kerala have been because of its improper use – that is – aerial spraying in undulating terrain with several water bodies and high degree of inhabitation near PCK cashew plantation. This is similar to the situation in Thailand where Endosulfan was used injudiciously beyond the recommended concentration. No causative link between the reported health problem in Kasargod district of Kerala and use of Endosulfan has been established in spite of a number of expert committees having examined this issue. No adverse effect of Endosulfan has been reported from any other part of India (Except Karanataka) including

from those with much larger use of Endosulfan over a long period of time.

5. The muti-national corporations, mostly based in developed countries have an interest in promoting new patented molecules and by phasing out off patent products.

6. It is important to stress, though it may sound simplistic and self evident, that all pesticides are by definition toxic. What is important is that they are used with caution observing duly established safety protocols and are used as sparingly as possible. Many of the chemicals which are today considered hazardous are those which were once considered in the past as wonder chemicals, for example DDT. Chemicals which are considered safe today may show highly adverse effects in the future. The important point is that there has to be a continuing search for safer and cost effective alternatives.

F: Endosulfan was in use in India since 1960s, i.e. before the Insecticides Act, 1968 came into existence. Therefore, such pesticides, which were in use, before the said act came into existence, due to their effectiveness and safety were allowed to be registered as per the

proviso under Section 9(1). The Government had asked the registrants to furnish data necessary to arrive at tolerance limits (maximum residue levels). The data on short term toxicity of Endosulfan including the toxicity to fish, birds and mutagenicity of Endosulfan was received and scientifically scrutinized by the experts and the Registration Committee. Further the international evaluation of Endosulfan in respect of long term toxicity studies like carcinogenicity, teratogenicity, effects on reproductive system had shown that there are no such hazards associated with Endosulfan. Endosulfan was allowed to be used only on those crops on which the data was provided by the registrants. Other crops were deleted from the label. Hence the allegation of the petitioner that the Respondents failed to examine the poisonous aspects of Endosulfan is not correct.

D^2 & E^2: With reference to grounds mentioned from D2 to E2 it is submitted that the averments of the petitioner that the Respondents No. 1 has failed to follow the dictum laid down by the Hon'ble Supreme Court held in Dr. Ashok vs. Union of India 1997 (5) SCC-10 and that the positive directions which is binding in nature under

Article 141 of the constitution have been flouted by the Respondent No. 1 in all respects and also that in case of Endosulfan the government machinery completely failed to protect the valuable human life from the hazardous effect of Endosulfan are not correct in view of the fact that the said dictum laid down by the Hon'ble Supreme Court vide D. No. 7903/85/SC/PILC dated 14th May, 1997 was duly complied with by the Central Government by setting up an Inter-Ministerial Committee (hereinafter to be referred to as IMC) to review the use of insecticides and hazardous chemicals was vide Office Memorandum No. 91/1/5/95-CA.IV dated the June 26, 1997. A copy of the said O.M. is Annexed hereto and marked as (**Annexure-R.11**). IMC has since met 35 times to discuss several issues, including health related issues, in respect of pesticides. The issue of Endosulfan was also discussed by this Committee in its various meetings including the report of Dr. C.D. Mayee Committee. IMC, in its 27th meeting held on 21.03.2006 agreed with the recommendations of the Committee with the proviso that use of Endosulfan should be kept on hold in Kerala till such time that the results of epidemiological study are available. Subsequently, a notification was issued in the

Gazette of India vide S.O. No. 1874 (E) dated October 31, 2006. The Respondents will ensure regular meetings of IMC.

It is also submitted that the issue of Endosulfan has been deliberated in other fora and at various levels. It has been discussed in the meetings of the Registration Committee from time to time. It was also discussed by Secretary (Agriculture & Cooperation) in a meeting taken with concerned Departments on 31.01.2011 in the context of NHRC's recommendations. Thereafter, it was discussed in a meeting of Secretaries of Department of Agriculture & Cooperation, Ministry of Health and Ministry of Environment & Forests on 10.02.2011.

It is further submitted that the Respondents have taken a number of new initiatives, following a decision of the Committee of Secretaries (COS), in launching the scheme "Monitoring of Pesticide Residues at National Level" in food commodities and environmental samples from October 2006 with the participation of 21 laboratories under Ministry of Agriculture, Indian Council of Agriculture Research, Ministry of Health and Family

Welfare, Ministry of Environment and Forest, Council of Scientific and Industrial Research, Ministry of Chemical and Fertilizer, Ministry of Commerce and State Agricultural Universities across the country. Under the scheme, participating laboratories collect samples of food commodities from various Agriculture Produce Marketing Committee (APMC) markets, Public Distribution System (PDS) and irrigated water and soil samples from intensive agricultural fields across various parts of the country. In order to ensure the uniformity in the methodology like sampling, extraction and cleanup of the samples, the "Pesticide Residue Analysis Manual" published by the Indian Council of Agricultural Research, has been provided and followed by all the participating laboratories. The samples are analyzed for presence of pesticide residues in various food commodities such as vegetables, fruits, cereals, spices, pulses, milk, butter, fish, meat, tea etc.

The reports are shared with State Governments and concerned Ministries/Organizations to take necessary action including intensifying promotion of integrated pest

management approach, which emphasizes safe and judicious use of pesticides.

Under the centrally sponsored scheme "Support to State Extension Programmes for Extension Reforms", launched in May 2005 for promoting decentralized and farmer friendly extension system, different extension activities are carried out such as farmers' training, exposure visits, demonstrations, Kisan Melas, Field Days, Kisan Goshties, mobilization of Farmers' Interest Groups and setting up of Farm Schools in the fields of outstanding farmers. Under the scheme, which is currently in operation in 603 districts of 28 States and 3 UTs, based on the reports received from the States/UTs, 148.10 lakh farmers have been benefitted so far upto March, 2011 providing farm information including proper use of pesticides. In addition, 24,363 Farm Schools have so far been set up.

The Respondents have also prepared a Bill called to the Pesticides Management Bill to provide a more effective regulatory framework for management of pesticides. The Bill was introduced in the Parliament in 2008.

F[2], G & H: With reference to grounds mentioned from F, G and H it is submitted that the under Section 5 of the Insecticides Act, 1968, the Registration Committee has been constituted which registered insecticides for import and manufacture in the country. It registers insecticides after scrutinizing formulae, verifying claim of efficacy and safety to human beings and animals, specifying the precautions against poisoning and any other functions. The Committee has evolved exhaustive guidelines/data requirements for this purpose. Wherever it is not satisfied about the safety and efficacy of the products, the registrations are refused for those insecticides. Presently, 230 insecticides stand registered on regular basis for use in the country. Whenever the Registration Committee is not satisfied about the safety and efficacy of the products, the registrations are refused for those insecticides. Accordingly, 18 insecticides have been refused registration. The Registration Committee is a technical body, having members from different ministries. The Registration Committee is Chaired by the Agriculture Commissioner and has two permanent members, viz. Drugs Controller General of India and the Plant Protection Adviser to the Government of India and other members

from Ministry of Chemicals & Fertilizers, Indian Council of Agricultural Research and Ministry of Health & Family Welfare besides co-opted members from concerned ministries, viz. Ministry of Environment & Forests, Food Safety & Standards Authority, Indian Institute of Packaging, etc. It also has experts on Chemistry, Medical Toxicology, Bio-efficacy and Packaging of pesticides, extending support to the Registration Committee. The Registration Committee registers pesticides after satisfying itself with the efficacy and safety of pesticide products through exhaustive technical data, generated through scientifically designed procedures as laid down under Section 5 and 9 of the Insecticides Act, 1968.

Science being dynamic subject, new developments do com the notice of the Government from time to time. Government keeps on reviewing information available insecticides by appointing Expert Committees or by Registration Committee. 27 insecticides or their formulat have been banned for import, manufacture in the coui **(Annexure-R.12)**.

There are 67 pesticides which have been banned or sever

restricted in some countries but are still used in **(Annexure-R.13)**. Out of these, 65 pesticides have al been reviewed by various Expert Committees. Further three pesticides (Chlorfenapyr, Ethion and Sulfosulfuron) are review by Expert Committee under the chairmanship Mayee.

As pesticides are toxic substances, their use has to be regulated with proper risk assessment. Studies are carried out in test organisms (microbial, cells or animals) and the exposure level is increased until an adverse effect is produced. The highest dose of the pesticide that does not cause detectable toxic effects on the test organisms is called the no-observed-adverse-effect-level (NOAEL) and is expressed in milligrams per kilogram of body weight per day. Safety limits are assessed in comparison with acceptable daily intake (ADI). ADI is the estimate of the amount of a substance in food (mg/kg body weight/day) that can b ingested daily over a lifetime without appreciable health risk to the consumer. ADI is calculated by dividing the NOAEL for animal studies with an uncertainty factor of 100 to convert to a safe level for humans. Food consumption data are essential

component of dietary risk assessment. The data used depend upon the type of population being assessed: children, special ethnic groups, geographical regions and estimation of the quantity of food eaten. Maximum residue levels (MRLs) are the highest levels of residues expected to be in the food when the pesticide is used according to good agricultural practices. To determine whether an MRL is acceptable, the intake of residues through all food that may be treated with that pesticide is calculated and compared with the ADI. Thus, MRLs are always set far below levels considered to be safe for humans. It should be understood that MRLs are not safety limits; a food residue can have higher level than MRL but can still be safe for consumption. MRLs in various food commodities in India are fixed under the Prevention of Food Adulteration (PFA) Act, 1954 (now the Food Safety and Standards Act, 2006).

It is reported that more than 2.6 million tons of active ingredients of pesticides are used worldwide. Roughly 85% of this consumption is used in agriculture. About three-quarters of pesticides are used in developed countries, mostly in Europe and Japan. India's

consumption of pesticides is only 2% of the total world consumption. Only 25-30% of total cultivated area in the country is under pesticide cover. The per hectare consumption of pesticide in India is 381 g which is low as compared to the world average of 500 g. Low consumption in India can be attributed to fragment land holdings, low level of irrigation, dependence on monsoons, low awareness among farmers about the benefits of usage of pesticides etc. Fruits and vegetables consume the highest amount of pesticides (26%) in the world, followed by cereals (15%), maize (12%), rice (10%) and cotton (8.6%). In India, however, 45% of the total pesticide consumption is on cotton-crop, followed by rice (22%), vegetables (9%) and pulses (4%) and the trend is now changed after the introduction of transgenic cottons. Partly as a result of re-orientation of plant protection strategy and adoption of IPM as the main plank of plant protection strategy since 1994, introduction of new pesticides and introduction of Bt cotton, the consumption of chemical pesticides in the country has declined from 65,462 metric tonnes (technical grade) in 1994-95 to 41,822 metric tonnes (technical grade) in 2009-10. On the other hand,

the consumption of bio-pesticides has increased from 123 metric tonnes in 1994-95 to 3,395 metric tonnes during 2009-10.

Quality of pesticides is regulated under various provisions of the Insecticides Act, 1968 and Rules framed there under by the Government of India. Under the Insecticides Act, 1968, there is a mandatory requirement of seeking a manufacturing license by each manufacturer in addition to the product registration. The enforcement of various provisions of the Insecticides Act mainly rests with the State Governments.

There is a network of 68 State Pesticides Testing Laboratories (SPTLs) in 23 States and 1 UT with total annual capacity of 68,110 samples. The pesticides samples drawn by Insecticide Inspectors, as per provision of the Insecticides Act, 1968 are analyzed at SPTLs.

Provisions proposed in the Pesticides Management Bill are more stringent about use of pesticides and severe penal provisions are there to punish offenders.

Petitioners have alleged that the Respondents failed to examine poisonous aspects of Endosulfan before giving registration. In this context, it is submitted that Endosulfan was in use in India since 1960s, i.e. before the Insecticides Act, 1968 came into existence. Therefore, such pesticides, which were in use, before the said act came into existence, due to their effectiveness and safety were allowed to be registered as per the proviso under Section 9 (1). The Government had asked the registrants to furnish data necessary to arrive at tolerance limits (maximum residue levels). Endosulfan was allowed to be used only on those crops on which the data was provided by the registrants. Other crops were deleted from the label.

I: With reference to grounds mentioned from I it is submitted that the relevant extract of JMPR 2006 report **(Annexure-R.7B)** is reproduced below, which clearly state that long term and short term intake of residues of Endosulfan are '**unlikely** to present public health concern':

Long-term intake

The Meeting concluded that the long-term intake of residues of endosulfan from uses that have been

considered by the JMPR is unlikely to present a public health concern.

Short-term intake

The Meeting concluded that the short-term intake of residues of Endosulfan resulting from the uses that have been considered by the JMPR, except the uses on broccoli, celery, cherries and tomatoes, is unlikely to present a public health concern.

Without prejudice to the above contentions, it is respectfully submitted as follows:-

1. All Pesticides are toxic substances and, hence, are intrinsically hazardous. Therefore, their import, manufacture, sale, transport, distribution and use is regulated under the Insecticides Act, 1968 and Rules framed there under (here-in-after referred to as the Act) with a view to prevent risks to human beings, animals, and for matters connected therewith. Under Section 5 of the Act, Registration Committee (RC) has been constituted which registers the pesticides for import and manufacture in the country.

2. The Registration Committee registers the pesticides only after satisfying itself regarding the efficacy of pesticides and their safety to human being, animals and the environment. If the Registration Committee is of the opinion that the precautions claimed by the applicant as being sufficient to ensure safety to human being or animals are not such as can be easily observed or that notwithstanding the observance of such precautions, the use of the insecticide involves serious risk to human beings or animals, it may refuse to register the insecticide.

3. Under such circumstances, the use of registered pesticide for the purpose and in the manner as prescribed by the RC is unlikely to pose hazards to human and animals health. The properties, classification, approved formulations; relevant data regarding toxicity, recommended usage of Endosulfan, its status with respect to ban/ restriction in foreign countries etc. were extensively studied by the Expert Committee under the Chairmanship of Dr. S. N. Banerjee in 1984 and Dr. R.B. Singh in 1999 and recommended its continued use in the country. After the incidence in Periyar Division of PCK.

Kerala, the Government reviewed the matter and constituted a Committee under the Chairmanship of Dr. O.P. Dubey, the then ADG (PP), ICAR, New Delhi to examine (i) the report of National Institute of Occupational Health (NIOH), Dr. Achuthan Committee, KAU & FIPPAT on the aerial spraying in Kasargod District of Kerala and other related reports and (ii) Safety assessment of Endosulfan and to recommend on its continued/restricted use or otherwise.

4. Further, Union Department of Agriculture & Cooperation (DAC), constituted a Committee under the Chairmanship of Dr. C.D. Mayee, the then Agriculture Commissioner, Department of Agriculture and Cooperation, to review the safety of Endosulfan .The committee recommended that:

(a) There is no link established between use of Endosulfan in PCK plantations and health problems reported in Padre Village.

(b) Aerial spraying of pesticides may be allowed in case of national exigencies after permission of the Central Insecticides Board (CIB).

(c) The application of all pesticides including Endosulfan is to be done adhering to regulatory stipulations in force from time to time.

(d) The pesticides manufacturers should take necessary steps to promote & educate sellers and users to ensure correct and safe use of all pesticides.

(e) Since India has adequate pre-registration data requirement and post registration review processes concerning use of pesticides, it is recommended that science based responses be made available to all stake holders and general public by registration authorities. There is often a huge gap between perception of the risk and actual scientific risk assessment. This gap is to be filled by proper and timely propagation of knowledge and information.

(f) It is also recommended to conduct a comprehensive, well designed & detailed health & epidemiological study in the entire cashew plantation areas of Kerala to ascertain the incidences of diseases in Padre vis-à-vis other relevant locations in Kerala State to investigate and if possible pin-point the probable factor that are responsible for alleged health problems at Padre.

(g) Use of Endosulfan is not clearly linked to the alleged health problems in Kasaragod district of Kerala. However, considering the apprehensions in the minds of the public in Kerala, the Committee recommends that it would be better if use of Endosulfan is kept on hold in Kerala.

(h) Finally, after considering all above factors and available reports, it is recommended that use of Endosulfan be continued as per provisions of Insecticide Act 1968. As a precautionary measure, Union Government issued a Notification for use of Endosulfan in the State of Kerala shall be kept on hold.

5. It is further submitted that Dr. O.P. Dubey and Dr. C.D. Mayee Committees, both, had recommended that there is no link established between use of Endosulfan in PCK Plantations and health problems reported in Kerala. As a precautionary measure, Union Government issued a Notification dated 31.10.2006 vide which use of Endosulfan has been put on hold in Kerala vide Government of India order till such time the result of the epidemiological study to pin-point the factors responsible for the health problems in village Padre become available

and a decision thereon is taken by the Central Government.

6. There is consensus among various studies that Endosulfan was applied improperly in Kerala. The Central Insecticides Board (CIB) and Registration Committee (RC) have not approved aerial spraying of pesticides after 1992. Plantation Corporation of Kerala (a Kerala state government undertaking) never sought permission to The Central Insecticides Board for aerial spraying of Endosulfan on cashew plantations located in undulating terrain with presence of water bodies.

7. While alternatives to Endosulfan are available, many of them are significantly costlier to use, including alternative pesticides identified by the Persistent Organic Pollutant Review Committee (POPRC) of Stockholm Convention, a fact acknowledged in POPRC's risk evaluation. As against Rs. 113 to 340 per hectare for Endosulfan, Indian farmer would have to expend Rs. 911 to 1,604 per hectare for Spinosad, Rs. 1,120 to 2,800 for Fipronil, Rs. 2,055 for Chlorantraniliprole and Rs. 3,000 for Flubendiamide – some pesticides identified by POPRC.

8. Multinational companies (MNCs) based in developed world develop new molecules for which markets are created by phasing out existing products. MNCs demand data protection while introducing new molecules in developing countries to maintain their monopoly translating into higher prices for farmers.

9. Endosulfan is not listed as known, probable, or possible carcinogen by the EPA, IARC, or other agencies. There are no epidemiological studies linking exposure to Endosulfan specifically to cancer in humans.

10. Endosulfan is an all-purpose pesticide and is, therefore, popular with farmers.

11. Endosulfan is being used by various countries internationally including India while it has been restricted/banned in many countries.

12. The decision to ban a chemical should be based on objective and scientific criteria applying the rigorous

standards expected of scientific body and not based on empirical evidence alone or on probabilistic consideration.

13. The decision to continue or ban Endosulfan should be within overarching frame work of sustainable development. It is explicitly recognized in the Directive Principles of State Policy of our Constitution that the State's overriding priorities are economic and social development and eradication of poverty.

14. The Stockholm Convention, while listing Endosulfan in Annex A, has also taken the following decisions:

(i) That exemption will be available for some crops/pests for a period of five years, extendable by another five years.

(ii) Alternatives would be examined and reported to COP by 2013.

Therefore, the Respondents are of the view that an outright ban at this stage is not warranted by scientific evidence and also as abrupt non-availability of cost effective and safer alternatives and will seriously affect food security.

15. It is humbly submitted on behalf of the first Respondent that the Central Government, Ministry of Health had constituted an Expert Committee under the chairmanship of DG, ICMR to review use of Endosulfan. The respondents had constituted Committee on 04.05.2011 for this purpose (**Annexure-R.5**). It is further submitted that now the Joint Committee appointed by Hon'ble Supreme Court vide order dated 13.05.2011 in writ petition (civil) No. 213 of 2011 "Democratic Youth Federation of India vs Union of India & Ors" headed by the Director General of ICMR and the Commissioner (Agriculture) has been entrusted to conduct a scientific study on the question whether the use of Endosulfan would cause any serious health hazard to human beings and would cause environmental pollution. The Committee has been directed to submit its interim report within eight weeks from the date of the order and also suggest any alternative to Endosulfan. Further action in this matter can be taken after the inputs from Joint Committee appointed by Hon'ble Supreme Court become available.

16. It is reiterated that the petitioner had filed the WP before 25 April 2011,showing urgency of the matter that the issue is in the agenda of the ensuing Stockholm Convention during 25-29 April 2011. The intention of the Petitioner may be noted before taking any decision as intention is the main principle on which justice hinges. It may be noted that the Stockholm Convention has already taken its decision to list Endosulfan in Annex A of the Convention. In view of this it is pleaded that the Hon'ble Court may take its decision based on the latest developments and that the decision has already arrived at international level of phasing out Endosulfan and that India has already gone with the consensus.

17. To sum up, as there is an established system in the country to register and review pesticides including Endosulfan; as use of Endosulfan has already been put on hold in Kerala as a matter of precaution in view of health problems reported in Kasargod district till such time factors responsible for the health problems are ascertained; as IMC was constituted by the Government as per directions of this Hon'ble Court and has held 35 meetings so far; as JMPR assessment shows that long term intake of residues of Endosulfan is unlikely to

present public health concern; as views of the State Governments have been sought by the Respondents on Endosulfan; and as a final view on Endosulfan can be taken based on the inputs of the Joint Committee appointed by Hon'ble Supreme Court; the prayer of Petitioners for banning Endosulfan is unnecessary at this stage and, therefore, it is prayed by Respondents that the petition may be dismissed.

In view of the foregoing facts it is prayed that the petition may be dismissed.

All the facts stated above are true and correct to the best of my knowledge, information and belief.

Dated this the ___ day of July 2011

DEPONENT

Solemnly affirmed and signed before me by the Deponent, who is personally known to me on this the ___ day of July 2011 in my Office at_____.

Deponent.