International Bioethics Committee (IBC):

Topic 1: Question of: Tackling the ethical standards in organ transplantation and combating organ trafficking in Southeast Asia

Organ trafficking is one of the most significant ethical and human rights issues, particularly in Southern Asia, where it is closely linked to boarder patterns of inequality and explication. This practice involves the illegal removal and trade of human organs where individuals from economically disadvantaged or socially marginalized backgrounds are targeted. Victims include immigrants, refugees and unemployed individuals who may be coerced, deceived or driven by financial desperation into agreeing to organ removal. In many cases, the concept of real consent is undermined and the individuals are misinformed about the risks or are promised payments that are never fully received.

The occurrence of organ trafficking is mainly driven by the worldwide imbalance between the demand for organ transplants and the limited supply available organs through legal and ethical donation sights. This shortage has enabled the growth of a highly profitable black market, in which criminal networks have exploited vulnerable populations while generating great amounts of financial gains. Estimates suggest that majority of transplants worldwide occur through illegal channels which highlight the scale of the issue.

Southern Aisa has become a key region for these networks due to the combination of economic vulnerability, weak regulatory enforcement, and the existence of transplant tourism. Vietnam and Indonesia are both documented cases of organ trafficking which show how trafficking operations often involve multiple factors, which include recruiters and intermediaries, and may extend across national borders. The victims are often transported or manipulated into situations where they undergo organ removal under exploitive conditions and they receive little to no post-operative care.

Overall, the ongoing organ trafficking in Southeast Asia is a complicated mix between medical demand, economic need and ethical failure which raises concerns about the protection of human dignity and integrity within global transplantation practices.

Topic 2: Question of: Assessing the ethical and governance challenges of CRISPR gene editing in China

Over the past few years, gene editing technology—particularly the new genetic engineering tool known as Clustered Regularly Interspaced Short Palindromic Repeats (CRISPR), has enabled scientists to alter, add or remove DNA sequences with exceptional accuracy and efficiency. The application of this biotechnology to human germline editing, where changes are made to embryos or reproductive cells and are inherited by future generations, has become a controversial area of study. While the technology holds potential for preventing genetic disorders, it has also raised difficult ethical, legal and governance challenges, especially in context such as China where scientific development has progressed quickly.

International concern increased after early experiments on human embryos in 2015, and more significantly after the 2018 announcement of the first gene-edited babies. These events drew attention to gaps in oversight and highlighted the risks of continuing with such technologies without proper and enforceable ethical frameworks. So, in response, China has taken steps to strengthen its regulatory environment, including stricter guidelines and increasing inspection over biomedical research. However, the quick pace of the innovation continues to test the effectiveness of these measures.

The central concern of CRISPR is the scientific uncertainty. Although it is often described as precise, it is not without limitations. Risks such as unintended genetic alterations, incomplete edits and the long-term effects of modifying the human genome are not fully understood. These concerns are intensified in germline editing, where any changes are permanent and passed down through generations.

Ethically speaking, this technology raises questions about boundaries of human interference in natural processes. Other than disease prevention, gene editing can be used for enhancement purposes such as altering physical appearance or cognitive traits which have sparked fears of modern eugenics. Adding to that, unequal access to such technologies could deepen existing social inequalities. The inability of future generations to consent to inherit genetic changes further complicates the issue. This makes CRISPR germline editing a highly questioned area within bioethics and global governance.

Topic 3: Question of: Addressing the ethical and environmental implications of insect gene drive technologies for food security in Sub-Saharan Africa

Insect gene drive technologies denote a significant advancement in modern biotechnology, with increasing application to food security challenges in Sub-Saharan Africa. These systems alter the traditional patterns of inheritance by guaranteeing that specific genetic traits are passed onto a greater proportion of offspring, which allows them to spread rapidly through a targeted population. Through biological tools such as CRISPR-Cas9, scientists can design gene drives to either reduce populations of harmful insects or modify them to reduce their capacity to damage crops. This has made gene drives a potentially transformative approach to controlling agricultural pests that threaten food production in susceptible regions.

Agriculture systems in Sub-Saharan Africa are especially vulnerable to disruption from invasive species and crop-damaging insects, which contribute to a major harvest loss. Gene drives have been proposed as a method to address these challenges in a more targeted and potentially long-lasting way compared to conventional approaches. Experimental studies have shown that engineered traits, such as reduced fertility or modified reproductive patterns, can spread through insect populations within a few generations. This led to increased interest in their application as a tool to stabilise food supplies and reduced reliance on chemical pesticides.

At the same time, introducing gene drive organisms into natural ecosystems suggests considerable environmental uncertainty. Their ability to spread beyond initial release sites raises concerns about unintended ecological consequences, including effects on non-targeted specices and broader ecosystem dynamics. The complexity of these systems means that the outcomes are difficult to predict prior to large-scale implementation, particularly in diverse and interconnected environments.

Concerns are also raised due to the social and ethical complications. This involves how decisions about deployment are made and the extent to which affected communities are informed or involved. Questions about transparency, accountability and the distribution of potential risks and benefits continue to shape discussions on the role of gene drive technologies in addressing food security within the region.