

Saving Frozen Embryos Through Adoption Agreements: Bridging The Legal & Bioethical Gap in Indonesian Private Civil Law

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Abstract. *This study examines the legal and bioethical issues surrounding remaining frozen embryos in Indonesia, particularly the lack of regulations governing their use through embryo adoption. Current regulations require the destruction of unused embryos, creating a legal and ethical dilemma as embryos are considered potential human life with a right to life. This study uses a socio-legal approach with legal and comparative analysis to evaluate existing regulations and practices across several countries. The findings indicate a significant legal gap in Indonesia regarding embryo adoption, resulting in a lack of legal protection for prospective parents and embryos. This study proposes embryo adoption as a viable legal and bioethical solution to ensure embryo protection and the fulfillment of reproductive rights, and contributes to the development of a more comprehensive legal framework in private civil law.*

Keywords: *Adoption; Agreement; Bioethics; Frozen Embryos; Protection.*

1. Introduction

Advances in science and technology have evolved alongside human civilization, which is dynamically evolving and whose progress cannot be precisely predicted. Science and technology are developed for the well-being of humanity and can therefore influence and shape human behavior. This also involves an understanding of the value of life and the human responsibility to preserve

it.(Sofiani & Frinaldi, 2023)Technology in the health sector includes the use of living cells such as microorganisms, tissue cultures, or enzymes to achieve success in addressing health problems, for example in medicine or diagnostic tools.(Noviantari, 2020)

The development of various technologies includes both existing and continuously improved assisted reproductive techniques. Assisted reproductive technology refers to all techniques involved in infertility treatment that require the handling and manipulation of gametes and embryos, which can address health issues such as medication or treat infertility. Recent advances in assisted reproduction have sparked significant discussion and debate in various countries, examining the scientific boundaries of what is considered acceptable. This is because the stages of human development are complex and sensitive, requiring careful ethical consideration, which in turn can give rise to controversies involving ethical, social, medical, legal, and religious dimensions.

The use of technology brings changes to modern civilization that can provide benefits for universal human welfare. Therefore, technology must be aligned with humanitarian values, which serve as a foundation for creating laws that uphold human dignity and worth, so that the resulting legal framework reflects justice by humanizing individuals. The existence of law is expected to function as a means of dispute resolution, a tool for social engineering, a medium for societal emancipation, a source of legitimacy, and a mechanism for social control over change or the distribution of justice. Law must provide clear boundaries for all forms of human behavior, including research and the use of technology in any field.(Mangesti, 2016)

Couples who have difficulty conceiving naturally can use in vitro fertilization (IVF), a medical procedure in which an egg is fertilized by sperm outside the body in a petri dish by a medical professional. The resulting fertilized egg and sperm develop into what is called an embryo. Several embryos are typically needed during an IVF procedure; however, in practice, doctors often transfer only two or three embryos into the uterus, depending on their chances of successful development (Frith et al., 2017). In frozen embryo transfer, the remaining embryos are frozen using liquid nitrogen and stored in a special freezer at approximately minus 200 degrees Celsius. Embryo freezing can serve as an alternative option if previously transferred embryos fail to develop in the uterus, allowing couples to try again to conceive using the stored embryos, providing a solution for couples who want to continue their family line.(Rizal Fadli, 2022)

Frozen and stored embryos can survive for years. Cryopreservation through a frozen embryo transfer procedure is more efficient in terms of time, effort, mental energy, and cost. The process of retrieving embryos from storage and transferring

them to the uterus typically takes about 40 to 60 minutes (Rizal Fadli, 2022). Storing embryos in hospitals involves maintenance or rental fees. However, when stored embryos are no longer needed, the remaining embryos are often destroyed. Embryo utilization is considered more beneficial than their destruction; however, this has been the subject of considerable debate from ethical, religious, political, and legal perspectives, particularly with the development of stem cell therapy using human embryonic stem cells (hESCs). Embryos represent the earliest form of human life and are considered to possess life; therefore, any remaining embryos should not be destroyed. (Sari et al., 2024)

In the ethics of early human life, embryos are categorized as living beings. An embryo is a cell or organism in the early stages of development that cannot survive independently. It has a significant right to life because, biologically, it contains human life; therefore, it should not be destroyed. Utilizing leftover embryos can help build families for married couples who cannot have children due to infertility, such as infertile eggs or sperm. This creates an alternative legal reform through embryo adoption, which refers to the adoption of children by transferring leftover embryos into the uterus of a married couple who want to have children so that pregnancy can occur. Child adoption in Indonesia is regulated in Article 1 paragraph (9) of Law No. 23 of 2002 concerning Child Protection (Law No. 23 of 2002 concerning Child Protection). In Indonesia, adoption is carried out after the child is born. However, the use of leftover embryos for embryo adoption offers a solution where parents who have excess embryos can allow them to be adopted by infertile couples so that they can have children.

Married couples have the desire to have children as part of forming a prosperous family, including through non-natural conception methods by utilizing remaining embryos for embryo adoption. This is considered a basic human need and the right of every Indonesian citizen to have children in various ways, as stated in Article 28B paragraph (1) of the 1945 Constitution of the Republic of Indonesia. For infertile married couples, the state is obliged to respect and protect their human rights, including the equal right to have children, and must provide legal protection to achieve justice while still paying attention to limitations related to morality, religious values, and public order in a democratic society, as stipulated in Article 28J of the 1945 Constitution. Reproductive health is a right that every individual has, as stated in Article 49 of Law No. 39 of 1999 concerning Human Rights, which emphasizes that reproductive rights are inherent rights, especially for women because of their reproductive function. Reproduction itself is the ability of living things to produce offspring, starting with the fertilization process.

The use of stem cells in Indonesia is limited to treating disease or restoring health. There is a prohibition on the use of stem cells for reproductive purposes and a prohibition on the use of embryonic stem cells; however, there are no criminal

sanctions imposed, as stipulated in Article 135 of Law No. 17 of 2023 concerning Health. This situation creates a legal vacuum regarding the regulation of the use of remaining embryos. Furthermore, Article 112 paragraph (4) of Government Regulation Number 28 of 2024 concerning the Implementation of Law No. 17 of 2023, together with Article 49 paragraph (9) of Regulation of the Minister of Health of the Republic of Indonesia Number 2 of 2025 concerning the Implementation of Reproductive Health Efforts, stipulates that excess embryos whose storage cannot be extended must be destroyed. Violation of this provision results in administrative sanctions rather than criminal penalties.

If the law stipulates that the “subject” of the agreement is the party donating the embryo who has the right to perform, and the husband and wife as the parties obliged to fulfill the performance, then the “object” of the agreement is the performance itself. According to Article 1234 of the Indonesian Criminal Code, the agreed performance can be in the form of “giving,” “handing over something,” doing something, or refraining from doing something. The agreement to deliver is not limited to tangible objects or certain types and quantities of goods.(Dewi & Raditya, 2025). An agreement to provide something may also include the enjoyment or use of an item, where what is transferred is not the right of ownership but the right to use it safely. Therefore, the object of the agreement must be determinable, logical, and practical.(Suwandono, 2023). An enforceable agreement, as part of consensual law, binds the parties as long as it meets the requirements set out in Article 1320 of the Indonesian Criminal Code, thus contributing to legal reform in Indonesia.

Discussions from an ethical perspective relevant to Indonesian society are essential, given the pros and cons that need to be considered. Various legal and ethical debates have also examined regulations in various countries regarding the use of remaining frozen embryos through embryo adoption, questioning whether such a practice can be implemented and what legal consequences might arise. Therefore, it is important to assess the extent to which advances in assisted reproductive technology can provide benefits, particularly regarding the use of remaining frozen embryos for embryo adoption.(Isnawan, 2016).

The legal vacuum regarding the regulation of the use of remaining embryos in Indonesia should be a catalyst for developing an appropriate regulatory framework, allowing this issue to be understood from various perspectives. From a legal theory perspective, this situation presents a difficult situation, or dilemma, where on the one hand there is a lack of legal regulation, while on the other hand there are pressing demands that must be met, especially when embryos are considered the beginning of human life and should not be carelessly destroyed. Under such circumstances, the law may appear inadequate when faced with complex cases due to its inherent limitations.

The United Kingdom enacted the Fertility Act in 1990, and in 1996, thousands of frozen embryos were destroyed by incineration. This action prompted an official response from Catholic communities worldwide, raising concerns, and the issue of how to handle frozen embryos destined for destruction remains unresolved. Fertility law in the United Kingdom stipulates that embryos can be stored frozen for a maximum period of five years, which can be extended with the consent of the biological parents. Embryos can be destroyed in two circumstances: if the biological parents cannot be contacted or if they refuse to consent to continued embryo storage.(Yue & MacKellar, 2024).

The United Kingdom has noted that the large number of embryos being created and then destroyed has raised moral concerns in society, as the practice is seen as diminishing the intrinsic value of human life. Some bioethicists argue that banning the adoption of abandoned embryos is not an appropriate solution, especially when there are alternatives that allow the embryos to die or be “dignified”ly destroyed. This view reflects a broader debate about the moral status of embryos and the tension between the sanctity of life principle and utilitarian approaches in modern bioethics (Islam, 2013).

With the development of cryopreservation techniques, the number of embryos produced and stored has also increased significantly. This is primarily due to the practice of in vitro fertilization (IVF), where multiple embryos are produced simultaneously to increase the chances of a successful pregnancy. These embryos are generally stored as reserves for subsequent cycles, making them more time- and cost-efficient. However, this practice also contributes to the accumulation of unused embryos. Success rates for embryo transfer vary widely, influenced by factors such as maternal age, the number of embryos transferred, and other clinical conditions, with live birth rates generally ranging from approximately 2% to 37%, as reported in various studies of assisted reproductive technology.

The United States has had laws regarding embryo cryopreservation since the 1980s. In practice, in vitro fertilization (IVF) clinics are authorized to determine whether and when frozen embryos will be destroyed. However, some IVF clinics refuse to destroy frozen embryos under any circumstances. The concept of embryo adoption differs from embryo donation. Embryo donation is a process in which a couple with excess frozen embryos relinquishes all ownership rights to the embryos, which are then given to another couple who is not genetically related to them. Through embryo donation, couples who are unable to have children can adopt children through an adoption agency.(Al Hikam & Nawangsa, 2026).

The destruction of remaining embryos, resulting in their death, is inconsistent with moral and ethical principles. If embryos are considered living beings deserving of care and protection, then the good achieved by saving them lies in adopting

orphaned embryos as the best solution. This argument can be considered relevant in evaluating the morality of embryo adoption, although there are differences of opinion, with some supporting and others opposing it. There is also debate about whether embryo adoption can lead to the creation of more embryos through in vitro fertilization (IVF); however, some argue that adopting abandoned embryos is the most appropriate way to resolve moral and ethical dilemmas.(Setyowati, 2024).

The presence of large numbers of remaining frozen embryos has become a medical and ethical issue. There are four possible solutions for these frozen embryos: keeping them frozen indefinitely, thawing them until they die, using them for biomedical research, or donating them through embryo adoption to infertile couples who want to have children. Frozen embryo donation is often considered the best solution, although it still raises ethical concerns that must be carefully considered.(Sari et al., 2024). Furthermore, it is important to assess how many frozen embryos currently exist globally or in specific countries, to examine how long frozen embryos can maintain their viability—potentially exceeding ten years—and to evaluate the effectiveness of embryo transfer techniques, which currently ranges between 45% and 80%. Furthermore, it is necessary to define the concept of frozen embryo donation for transfer to married women with the consent of the biological parents, review historical data on human embryo cryopreservation in countries that permit embryo adoption, and examine the regulatory framework governing frozen embryos in Spain and other countries, particularly in Europe (Aznar-Lucea et al., 2016).

Evaluation of the benefits of adopting retained embryos must be viewed within the broader context of the benefits of adoption in general. Moral considerations regarding embryo adoption must be assessed in relation to embryos that are not transferred to the uterus and instead stored in a freezer until the end of their storage period, after which they are destroyed. Therefore, saving retained frozen embryos is crucial as an alternative solution to give abandoned embryos a chance to survive. This can be achieved through embryo adoption agreements, where frozen embryos are adopted by a childless couple, allowing the wife to conceive and give birth.(Clark, 2014)

For couples who decide to adopt their remaining frozen embryos, a key consideration is the extent to which this process involves collaboration with practitioners using in vitro fertilization (IVF) technology to transfer the embryos into the adopting woman's uterus, should Indonesia implement regulations permitting embryo adoption. However, currently, there are no specific legal provisions governing embryo adoption. Existing regulations, as stipulated in Law No. 17 of 2023 concerning Health, only address embryo destruction if the remaining frozen embryos' storage period is not extended.(Geldberg, 2016)

This study aims to provide an overview of developments in countries such as the United States, the United Kingdom, Spain, and other European countries in legalizing embryonic stem cells through the use of retained embryos, a relatively new phenomenon that addresses ethical and regulatory issues. Bioethics, as an interdisciplinary field, examines issues arising from advances in biology and medicine that have a broad impact on society and its value systems, both now and in the future. Bioethics is not limited to philosophical ethics applied to biomedical issues but encompasses a broader scope. (Mahmoud, 2022) This study will be analyzed using Werner Menski's Kite Theory. This theory assumes that law is influenced by four components: natural law, societal law, state law, and international law (human rights). These four elements are crucial in establishing a legal framework for the use of frozen embryos, which must not be destroyed, while taking into account the humanitarian values enshrined in Pancasila.

Based on the explanation above, it is important and interesting to examine the remaining frozen embryos as living creatures that must be protected and must not be destroyed, as a form of legal protection, as follows:

1. What is the legal framework governing the rescue of remaining frozen embryos through adoption agreements?
2. What is the legal protection for prospective parents who adopt remaining frozen embryos through an adoption agreement, in relation to bioethics from a civil law perspective?

Based on the background of the problem, the urgency or significance of carrying out this research is as follows:

1. To examine the legal framework governing the use of remaining frozen embryos through adoption agreements.
2. To analyze and determine the legal protection for parents who adopt the remaining frozen embryos through an adoption agreement, in relation to bioethics from a civil law perspective.

Based on the issues outlined above, this study aims to: (1) analyze the legal framework governing the rescue of remaining frozen embryos through embryo adoption agreements, and (2) examine legal protection for prospective parents from a civil law and bioethics perspective. This study also seeks to fill the existing legal gap in Indonesian law by proposing embryo adoption as a potential legal solution.

2. Research Methods

This study adopts a socio-legal approach, which views law not only as a system of written rules (law on the books) but also as a social reality (law in action). This approach is considered appropriate because the issues surrounding frozen embryos, embryo adoption, and bioethics are not merely legal in nature but also involve social, ethical, and humanitarian dimensions.(Maulidia et al., 2022).

To address these issues, this study employs three main approaches: legal, comparative, and conceptual. The legal approach examines relevant legal frameworks, including Law No. 17 of 2023 concerning Health, Government Regulation Number 28 of 2024, and Minister of Health Regulation Number 2 of 2025, to identify existing legal norms and legal gaps related to embryo adoption. The comparative approach explores how other jurisdictions, such as the United States, the United Kingdom, and several European countries, regulate or address similar issues, providing valuable references for potential legal reform in Indonesia. Meanwhile, the conceptual approach analyzes key legal concepts and bioethical principles, including respect for human life, justice, and utility, supported by theoretical perspectives such as Werner Menski's Kite theory.(Yulis, 2025).

This research relies on secondary data, consisting of primary legal materials (statutory regulations), secondary materials (books, journal articles, and previous research), and tertiary materials (supporting references). Data were collected through library research and analyzed qualitatively by interpreting legal norms, examining gaps between law and social reality, and conducting comparative analysis.

Through this methodological framework, this study seeks to provide a comprehensive understanding of existing legal gaps and develop normative recommendations to strengthen legal protection for remaining frozen embryos through embryo adoption.

3. Results and Discussion

3.1. Regulations on the Implementation of the Law on Frozen Remaining Embryos through Adoption Agreements

Healthcare is considered a basic need and a fundamental right of the community that must always be met as part of an investment in improving the quality of human resources in the health sector. The right to health is defined as the authority or right of every Indonesian citizen to obtain or decide whether to act or not to act in matters related to their health.(Yustina et al., 2020) The government

is responsible for ensuring that basic health rights, which include individual rights and social rights, are fulfilled.

Individual rights encompass personal freedom as Indonesian citizens, particularly the right to self-determination in health-related decisions. Social rights, on the other hand, aim to provide individuals with opportunities to develop and improve themselves within society, including the right to access health services, as health is an opportunity available to everyone through the public sphere.(Siregar, 2020)

Individual rights related to the right to life are regulated in Article 28A of the 1945 Constitution, which guarantees that everyone has the right to life and to defend their life and existence. This means that the human right to life cannot be diminished under any circumstances or by anyone, as it is the most fundamental human right. The right to life is considered a gift from God that exists from the beginning of human existence until death. This also includes the rights of married couples who wish to have children. Therefore, the government can make efforts to establish regulations and implement a legal framework for the rescue of frozen embryos, which can be used as embryo donation for married couples who wish to adopt children by utilizing frozen embryos from other couples that are no longer used.(Abu-Rabia, 2013)

Reproductive health issues arise in couples experiencing infertility, a condition in which a couple is unable to conceive. Infertility is a reproductive health issue that often escalates into a social problem, as the wife is often considered the cause. This can lead to women being marginalized, becoming victims of violence, having their health neglected, and being labeled as infertile or sterile.(Nanur et al., 2022)The impact of infertility can cause psychological stress for married couples.

The reproductive system is a group of organized structures that enable the creation, or reproduction, of new life for the continuation of a species. Human reproduction is sexual, meaning both males and females contribute genetic material to form new individuals. The ovaries release eggs (female gametes), while the male testes produce sperm (male gametes). Reproduction occurs when sperm meets an egg, a process known as fertilization.(Marmi, 2013)

The rescue of remaining embryos in the United States has been supported through the establishment of embryo adoption legislation, along with programs such as the Snowflakes Embryo Adoption Program and the National Embryo Donation Center, each of which has facilitated the birth of more than 500 children for recipient families in the United States and other countries. Since 2002, the Office of Population Affairs has awarded federal grants to organizations that promote awareness about embryo donation and/or embryo adoption.(Sari et al., 2024).

Responsible reuse initiatives like the REDEEM Biobank and the Blossom Embryo Adoption Program share an ethical commitment to recognizing the potential of frozen embryos, aiming to save remaining embryos while optimizing the use of valuable resources to advance scientific knowledge and future treatments for human disease. Researchers need human embryos to pursue stem cell research, study disease progression, and test therapies on human tissue that could lead to medical breakthroughs, all while adhering to ethical decision-making. Biobanks provide options for ethical embryo disposal, which often involve difficult decisions. However, donating embryos to REDEEM is considered a noble contribution to scientific progress and can ease the emotional burden on patients associated with decisions about embryo disposal.(Cromer, 2019)

The development of modern assisted reproduction (procreation) technology is an innovation developed by medical experts aimed at providing a solution for couples who wish to have children through embryo adoption. The application of this modern technology serves as an emergency measure to find a solution that does not violate moral and ethical principles.(Breed, 2014)Allowing the destruction of embryos when their storage period is no longer extended, even though embryos have the right to life as living beings, cannot be considered an appropriate solution to address the remaining frozen embryos. The status of children under the 1945 Constitution is reflected in Article 34, which states: "Poor and neglected children shall be cared for by the state." This implies that children are subjects of national law who must be protected, cared for, and developed to achieve their well-being. Therefore, children are the responsibility of the government and society.

Thomas Aquinas' doctrine of natural law is a teaching that bases law on ethics.(Mangesti et al., 2014)This means that law must have an ethical foundation, and that foundation must be rooted in human nature. According to Thomas Aquinas, human nature is oriented toward goodness, and this nature serves as the final cause. In line with Aristotle's view, Aquinas argued that law is ultimately directed toward happiness and goodness. All actions that aim at and result in human happiness are considered good. The realization of happiness and goodness constitutes the fulfillment and perfection of human nature, and that is what is understood as law.(Wardani & Delasa, 2023). Therefore, following natural law means acting in accordance with human nature—that is, doing good and avoiding evil. Positive law must be based on moral principles; thus, it must enable human beings to develop in accordance with their nature, uphold human dignity, ensure justice, guarantee equality and freedom, and promote the common good and general welfare.(Delarosa, 2024)

Law is not simply a text that exists in a vacuum. It only acquires meaning when applied to concrete events in society. Law can be effectively communicated and accepted by society when it embodies principles that align with the norms and

values held dear by the community.(Cristina & Manalu, 2025)Laws must evolve with the development of society and technology, and a legal framework for the rescue of remaining frozen embryos could serve as an alternative pathway to embryo adoption for couples who wish to have children and experience pregnancy.(Inayatillah et al., 2025).

Fertility issues experienced by married couples significantly impact their ability to have children. Advances in assisted reproductive technologies, such as in vitro fertilization (IVF), have provided solutions for childbearing and represent significant breakthroughs in medicine, with many successful outcomes. However, Indonesia does not yet have legal regulations governing embryo adoption. Therefore, Indonesia can take policy steps to address this issue by establishing a new legal framework for embryo adoption.(Al-Bar & Chamsi-Pasha, 2015)

3.2. Legal Protection for Prospective Parents Adopting Frozen Embryos Through an Adoption Agreement in Relation to Bioethics from a Civil Law Perspective

The United States federal government has established regulations regarding embryo adoption and has declared frozen embryos stored in laboratories to be considered living organisms. This regulation reflects a perspective that seeks to balance the needs of children within families with the individual's desire to become parents, as evidenced by the large number of frozen embryos awaiting adoption. Assisted reproductive technology in the United States has advanced rapidly and has addressed the legal and ethical issues associated with frozen embryo adoption.(Machado, 2020)

Ethical debates in various countries have raised questions about the practice of releasing embryos from in vitro fertilization (IVF) for family-building purposes. One key issue is whether embryo donation is an appropriate solution for prospective parents or recipients seeking to have children, based on specific criteria for adopting frozen embryos, including considerations related to genetic factors. At the same time, there are opposing views that prohibit embryo adoption, equating it with arguments against abortion.(Hallich, 2018)Embryo rescue must be carefully considered, because embryos have a right to life, and therefore their moral status must be taken into account.

Embryo preservation serves as a fundamental foundation in bioethics. The term bioethics comes from two Greek words: βίος (bios), meaning life, and ἦθος (êthos), meaning ethics. Literally, bioethics refers to the ethics of life. In this context, "life" includes human and non-human life in the universe, both on Earth and beyond. Some widely recognized principles of bioethics have been articulated by Tom L. Beauchamp and James F. Childress, including respect for autonomy, beneficence, non-harm, and justice.(Beauchamp & Childress, 2019)UNESCO also established fundamental bioethical principles, namely human dignity, human

rights, and fundamental freedoms (UNESCO, 2005). In the preamble and Article 2, the purpose of this declaration is stated as ensuring respect for human life.

According to UNESCO and healthcare ethics in general, respect for human life is paramount over other principles, including human rights. What does this mean? It means that when there is a conflict between respect for human life and other principles, respect for human life takes precedence. This principle is widely reflected in everyday practice. For example, ambulances carrying emergency patients may overtake other road users and even run red lights. During the early stages of the COVID-19 pandemic, citizens were prohibited from gathering and required to maintain physical distance. Although the rights to assemble and organize are protected by the 1945 Constitution, these rights can be restricted to save lives. Similarly, regulations requiring the use of seat belts or helmets while driving are intended to protect lives in the event of an accident. These examples demonstrate that protecting human life can justify the restriction of other rights, and many such measures have been implemented by governments to this end.

*When the principle of respect for human life is applied to remaining embryos, governments are obligated to protect existing life. Human embryology explains that human life begins at the moment of fertilization, when the egg and sperm unite..(Moore et al., 2013)*Therefore, the remaining embryos are already viable. Under these circumstances, embryos have only two possible outcomes: death or survival. The government is obligated to provide protection to ensure their survival. The only way for embryos to survive is by being transferred to a woman's womb. However, problems arise when the biological mother no longer wishes to carry the embryo, making adoption the only viable option, where the embryo is carried by another woman.

Embryo adoption, also known as embryo donation, is the transfer of excess embryos by a couple who have undergone in vitro fertilization (IVF) to another individual or couple experiencing infertility.(Goedeke & Daniels, 2017)

The issues surrounding embryo adoption are complex; however, these challenges can be balanced in favor of respect for human life. As discussed above, when there is a conflict between respect for human life and other considerations, the principle of respect for human life must prevail.(Kusmaryanto, 2022)Therefore, embryo adoption can be justified. There are several advantages to embryo adoption compared to adopting a pre-born child. First, the adoptive mother experiences pregnancy and carries the child, even if the child is not her biological child. This is important for establishing a psychological bond between mother and child. In contrast, when adopting a pre-born child, the mother does not experience pregnancy, which can sometimes make it difficult to form a strong psychological

bond, and the child may also be unaware of their biological origins.(Blyth et al., 2017)

The presence and increasing number of embryos in fertility clinics in Europe and North America first attracted widespread public attention in 1996, when a 1990 British law mandated the destruction of embryos stored in fertility clinics after five years. At the time, many Catholic communities opposed embryo destruction, and several Catholic women volunteered to carry these embryos. This offer sparked debate about the morality of a woman carrying an embryo that was not genetically her own. These embryos came to be referred to as "abandoned embryos," which, as life-giving creatures believed to be given by God, should be properly cared for and utilized to the best of their ability.(Nordin MM, 2012) Destruction of embryos is contrary to moral propriety.

Couples who choose to adopt embryos can immediately choose the sex of their desired child. The remaining embryos already have a predetermined sex, as it can be identified during the fertilization process.(Davis, 2014) This is especially important for couples in certain cultures where having a son is crucial for continuing the family line. Legally, a child born through embryo adoption is considered the biological child of the mother, eliminating the formal adoption process that would be required for a child already born. The woman who adopted and gave birth to the child can be listed as the mother on the birth certificate.

The differences between embryo adoption and child adoption are as follows:

- a. The difference lies in the gestational relationship. In embryo adoption, the recipient becomes the biological (gestational) mother, though not the genetic mother, of the unborn child. This is not the case with child adoption. Therefore, embryo adoption allows for the development of an emotional bond between mother and child during pregnancy, whereas in child adoption, the emotional bond between the adoptive parents and the child is formed after the adoption.
- b. Child adoption involves the adoption of an individual who already has needs, while embryo adoption involves the adoption of a potential human being who will later develop those needs and desires;
- c. Embryo adoption differs from child adoption in the adoption process. In child adoption, the child's existence can be traced back to the biological parents, as the child already exists independently. In contrast, in embryo adoption, the child is unborn and comes into existence based on the intentions of the adoptive parents.

Given the various issues surrounding the fate of remaining embryos, Article 49 of the Indonesian Minister of Health Regulation Number 2 of 2025 concerning the Implementation of Reproductive Health Efforts states that embryos can be stored for one year and then discarded or destroyed. Regulations permitting the destruction of embryos raise concerns, as such an act could be considered a form of abortion, which is legally prohibited. Another possible option is the use of embryos for stem cell extraction, either for therapeutic purposes or for cosmetic applications. However, this also results in the death of the embryo, which clearly contradicts long-standing medical ethics, as it is generally understood that the healing of a patient should not involve the loss of another human life.

A third possibility is that embryos could be used for medical experiments, ultimately leading to their death, as the experiments continue until the embryos are no longer viable. This clearly violates the ethics of healthcare research, as embryos are incapable of providing informed consent to participate as research subjects and cannot consent to being destroyed at the end of the experiment. This situation results in a situation where the embryo's fate is certain: death or abortion, with no chance of survival. Therefore, the best and only feasible solution to ensure the embryo's survival is through embryonic adoption.

Embryo adoption can be considered the best solution to save remaining embryos. This can be considered a form of child adoption and can be done by married couples, both those with and without children. In Indonesia, regulations regarding child adoption already exist. Adoption is defined as a legal mechanism for establishing a relationship between parents and children as regulated by law. Under Indonesian law, adopted children have inheritance rights, whereas under Islamic inheritance law, adopted children do not have inheritance rights but can receive gifts of up to one-third of the inheritance.

According to Satjipto Rahardjo, legal protection is the provision of guarantees for human rights that have been violated by others, and this protection is provided to society so that individuals can enjoy all rights recognized by law. (Prayoga et al., 2023) Legal protection related to embryo adoption remains a legal vacuum, as there are no specific regulations governing embryo adoption in Indonesia. Consequently, married couples seeking embryo adoption are unable to exercise equal rights and enjoy freedom before the law. Therefore, embryo adoption laws must be properly formulated to ensure effective implementation. These regulations must not conflict with existing legal norms, including religious, moral, and ethical principles. (Monez, 2020)

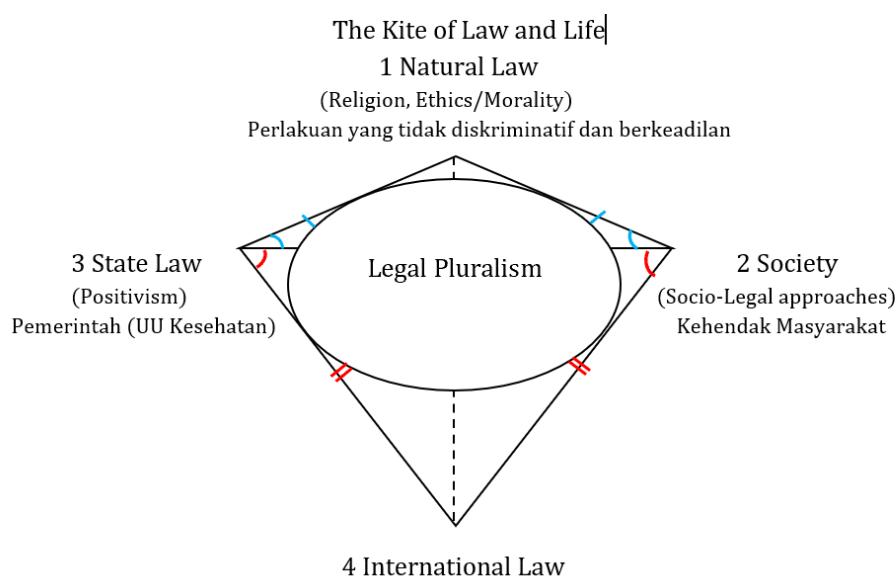
Legal protection related to embryo adoption can be effectively achieved if the government establishes policies that consider issues surrounding embryos as entities with a right to life. Therefore, the destruction of remaining embryos must

be prohibited to ensure the fulfillment of their right to life and to achieve legal certainty through the establishment of clear regulations regarding embryo adoption.

The law does not only aim to achieve legal certainty; it must also satisfy a sense of justice and improve the welfare of society as a whole, including in the context of saving remaining embryos that would otherwise be destroyed. Advances in assisted reproductive technology provide solutions for the preservation and adoption of these embryos. All humans have the same human rights without discrimination. Human rights have a higher status than positive law, because human rights predate positive law. In other words, positive law must not conflict with human rights; otherwise, the law will be considered unjust. (Sulaiman, 2016)

Therefore, the legal framework for health care regarding the implementation of embryo adoption should not rely solely on state law but should also be aligned with social realities, particularly those affecting childless couples. The development of these legal regulations follows Werner Menski's perspective by combining various dimensions: religion/ethics/morality, the state (in the form of health laws that can recognize practices such as surrogacy), and society (where embryo adoption exists as a social reality). Another important dimension is the inclusion of human rights, which guarantee protection for childless couples. Therefore, human rights must be a fundamental component of health care legal regulations to protect the rights of legally married couples who wish to have children. (Walters, 2016)

Werner Menski calls this development the "Kite" model, where the legal framework is no longer divided into three components (religion/ethics/morality/natural law, society, and positive law), but rather consists of four interrelated dimensions, supplemented by international law. This additional dimension emphasizes that embryo adoption protection for legally married couples who wish to have children is closely linked to the human rights context.



Human Rights and Universally Accepted Legal Values

Based on the Kite model proposed by Werner Menski, the human rights dimension is a crucial element that must not be overlooked in developing a legal framework for health care. In the context of health care, human rights are closely linked to the choice of embryo adoption for legally married couples who wish to have children as recipients of embryo donation, regardless of state authority. These rights must be respected and protected by the state.

Therefore, legal protection for embryo adoption for married couples who wish to have children—through the establishment of embryo adoption agreements based on principles of justice—requires the development of new legal regulations that align with the values of Pancasila. The author proposes that the purpose of legal research is to improve, refine, or reform existing laws so that they can effectively address concrete social problems. In this context, legal policy involves efforts to formulate and establish appropriate legislation governing embryo adoption. Similarly, to fulfill the rights of married couples who wish to have children, it is necessary to develop explicit policies to ensure legal protection for embryo adoption agreements, particularly through the use of assisted reproductive technology.

The explanation above clearly illustrates why embryo adoption remains a controversial issue, even though some countries have legalized the practice. In Indonesia, embryo adoption is strictly prohibited and often considered impermissible. This is based on the fact that the process involves the transfer of embryos from another party.

The author argues that binding regulations on embryo adoption are necessary, provided they do not conflict with religious values and the principles of Pancasila. Until comprehensive regulations—or even prohibitive regulations—are in place governing embryo adoption in Indonesia, and medical technology continues to advance, couples who wish to have children lack viable options, despite having equal rights as Indonesian citizens.

In modern understanding, the role of the state is as a welfare state. A welfare state is a state that manages public interests to achieve the greatest possible prosperity and well-being, based on justice within a state governed by the rule of law. (Putra, 2021)

A country governed by the rule of law is one that is based on legal principles and guarantees justice for all its citizens. Justice is a crucial prerequisite for achieving the well-being and happiness of its citizens. Therefore, moral values must be instilled so that individuals can become good citizens. Legal regulations reflect justice in social interactions among members of society. (Kusnarsi & Ibrahim, 2010)

In normative legal studies, law is an instrument for upholding justice, manifested as a code of conduct, with its primary function being to regulate human behavior. Discussing law essentially means discussing relationships between individuals. In a legal context, examining relationships between people is tantamount to discussing issues of justice. The role of law in matters of justice is to transform the idea of justice into a concrete form that can benefit human interactions. (Samekto, 2015)

At the global level, within the constraints of the nation-state, there has been a discussion aimed at reaching a common understanding of human rights. Human rights, as a prerequisite for democracies as they developed in the history of Western nations, were initially advocated to protect individuals from arbitrary actions by national authorities. However, human rights were not always interpreted solely from the universal perspective of individualism and liberalism; rather, human rights were also understood in a more specific sense through the lens of collectivism and nationalism in formerly colonized Eastern countries. Thus, the discourse shifted from emphasizing "individual freedom" to the principle that "freedom is the right of all nations." (Mohammad Maulana & Nur Akifah Janur, 2020)

Soetandyo Wignjosoebroto defines human rights as fundamental rights that are universally recognized as inherent in human beings by virtue of their nature and existence. According to him, these rights are considered "universal" because they are recognized as belonging to every human being, regardless of skin color, gender, age, cultural background, religion, or belief. The term "inherent" is used because these rights are held by individuals solely by virtue of their existence as

human beings, not as a result of being granted by any authority or institution. Because of this inherent nature, human rights cannot be revoked or removed.

The existence of constitutional protection of human rights includes legal guarantees for their enforcement through fair procedures. This protection is widely promoted in society to encourage respect for and protection of human rights as a fundamental characteristic of a democratic state governed by the rule of law. Every individual, from birth, has inherent, fundamental and inalienable rights and obligations. The formation of the state, and the exercise of its authority, must not diminish the meaning or substance of these freedoms and human rights. Therefore, the protection and respect of human rights are essential pillars of any state claiming to be governed by the rule of law. If, within a state, human rights are deliberately ignored or violated and the resulting suffering cannot be resolved justly, then that state cannot truly be considered a state governed by the rule of law in the true sense. (Syamsu & Fahmi, 2024)

For various reasons, many couples are unable to conceive. For many, this is a deeply painful problem, but it can also be addressed through certain modern medical technologies. "Reproductive technology" encompasses a wide range of medical procedures that share the common goal of human conception. Although these technologies exist and have proven effective in practice, ethical questions remain. Should infertile couples (or others) use these reproductive technologies? Ultimately, for many, the scope of these medical technologies remains complex and not fully understood. Consequently, many individuals hold strong beliefs about whether certain procedures are morally acceptable or unacceptable. This situation provides a relevant basis for examining various ethical and legal issues. (Murni et al., 2025)

From a technological and economic perspective, embryo adoption appears promising in addressing certain cases of infertility. However, in practice, this process is limited by existing legal regulations, ethical considerations, and prevailing social norms in Indonesia. Furthermore, questions arise as to whether such an agreement can be recognized under national contract law, especially given the highly unconventional object of the agreement—namely, embryos—which are considered both as objects and as something that functions as a service.

Reproduction through embryo adoption is closely related to contract law or the law of obligations. According to Article 1313 of the Indonesian Criminal Code, an agreement is defined as an act that binds one or more people to one or more other people. In other words, each party entering into the agreement is legally bound by the agreement. Furthermore, Article 1233 of the Indonesian Criminal Code stipulates that obligations arise both from agreements and by law. Therefore, based on these provisions, anything stipulated or agreed upon becomes legally

binding for the parties and becomes part of the agreement. Furthermore, to determine the validity of an agreement, certain legal requirements must be met by the parties. Article 1320 of the Indonesian Criminal Code outlines the essential elements of a valid agreement, namely: mutual consent of the parties, legal capacity to enter into the agreement, specific subject matter, and legitimate cause.

Therefore, the implementation of embryo adoption agreements, as part of legal reform in Indonesia, requires the creation of new legal regulations on embryo adoption policies that can guarantee legal certainty and align with the values of Pancasila. The author proposes that the purpose of legal research is to improve, refine, or amend existing legal regulations so that they can effectively address concrete problems in society.

The implementation of embryo adoption agreements, as part of legal reform in Indonesia, can ensure legal certainty through research based on comparative studies of embryo adoption laws in other countries. The author proposes an integrated embryo adoption model, starting with the understanding that the purpose of law is to achieve justice, stability, and social welfare. Therefore, a legal framework must be developed to simultaneously realize three fundamental legal values: justice, legal certainty, and utility.

4. Conclusion

Based on the discussion, this study finds that embryo adoption can be structured through a legal agreement that ensures clarity, fairness, and protection for all parties involved, particularly the prospective parents. This has important practical implications, as it provides a potential legal mechanism to regulate embryo adoption within the existing civil law framework. Theoretically, this study contributes to the development of socio-legal discourse by integrating bioethical principles with private law concepts in addressing emerging issues in reproductive technology. Therefore, in line with the objectives of this study, the government needs to establish comprehensive legal regulations that accommodate embryo adoption in a manner consistent with Pancasila values, human rights principles, and bioethical considerations. Such reforms are needed not only to provide legal certainty, but also to protect human dignity and address the growing challenges of modern reproductive practices.

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