Reproductive technologies, or assisted reproductive technologies (ART), encompass a wide range of medical treatments and surgical procedures that enable people to have children without the necessity for heterosexual intercourse. The use of ART has steadily increased since the 1990s, with nearly two million treatment cycles reported worldwide in 2017 alone.

Initially, reproductive technologies were primarily intended for heterosexual couples who were unable to have a child, but for some years now they have also been used to enable childbearing at an older age or within queer relationships and other alternative family forms. However, in many cases queer individuals continue to be discriminated against legally and financially, and in general the use of reproductive technologies is highly dependent on socioeconomic factors.

Sperm donation and artificial insemination (IVF/ICSI) are among the most common and globally widespread forms of ART. Preimplantation genetic diagnosis, so-called egg donation and surrogacy, on the other hand, are internationally controversial practices that are not permitted in some countries or only permitted to a limited extent. Here, bioethical and moral questions raise their heads. Is the selection of embryos legitimate? How is it shaped by socially normative concepts of a healthy and productive body? Who performs reproductive work? How does this work relate to global relations of power and exploitation?

In 1978, the first child was born in the UK through in vitro fertilisation. Since then, more than ten million IVF babies have been born.

The chances of success with IVF/ICSI vary greatly from region to region and depend, among other things, on the age of the patients. In Europe, the pregnancy rate per treatment is 36%.

It is estimated that worldwide 20,000 children are born annually through surrogacy.

The global surrogacy market is expected to exceed $27.5 billion by 2025.
**ARTIFICIAL INSEMINATION**

**INTRA-UTERINE INSEMINATION (IUI)**
In an IUI (also called sperm transfer), sperm cells are placed in the uterine cavity with a syringe or catheter at the time of ovulation. The aim is to increase the likelihood of fertilisation by placing the sperm in close proximity to the fallopian tubes.

**IN VITRO FERTILISATION (IVF)**
In vitro fertilisation is a procedure in which fertilisation of the egg takes place outside the body. After stimulating hormonal treatment of the ovaries, which increases egg production, the eggs are surgically removed and placed in a test tube with sperm cells. After fertilisation, the embryo is placed in the uterus.

**INTRA-CYTOPLASMIC SPERM INJECTION (ICSI)**
ICSI is a modified method of in vitro fertilisation in which the sperm is injected directly into the egg. It was originally developed for cases where the desired sperm cells are of particularly low quality. By now, however, the ICSI procedure is used more widely worldwide than IVF, although no general higher probability of success has been established.

**USE OF ASSISTED REPRODUCTIVE TECHNOLOGY METHODS**

1,955,908 reported cycles

329,388 deliveries
(missing data: n=7 countries)

Based on data from 79 countries and 2,989 clinics.

**Fresh cycle:** The fertilisation of the egg takes place right after egg retrieval.

**Thaw cycle/cryocycle:** Here it is no longer acutely necessary to retrieve eggs, as eggs have already been cryopreserved after previous procedures – e.g. if they are left over from IVF/ICSI treatment. The eggs are thawed and then fertilised.
INTERNATIONAL AGREEMENTS

There are few uniform international agreements and standards that explicitly address ethics and safety in the context of assisted reproductive technology. In particular, preimplantation genetic diagnosis (PGD) and egg transfer and surrogacy are controversial procedures that are regulated very differently from region to region. Nevertheless, there are some international agreements and conventions that are relevant in the context of reproductive technologies.

WORLD HEALTH ORGANIZATION (WHO)

The WHO International Statistical Classification of Diseases (ICD-11) defines infertility as a disease of the “reproductive system defined by the failure to achieve a pregnancy after 12 months or more of regular unprotected sexual intercourse”. Although WHO does not make an explicit recommendation on fertility treatment based on this, it discusses the option to have children as a basic human right and focuses on the problem that reproductive technologies are often inaccessible – especially in low- and middle-income countries. Together with other international organisations, WHO issued a statement in 2011 criticizing various forms of sex selection. In it, non-medical sex selection through PGD is discussed as a form of gender discrimination.

COUNCIL OF EUROPE

In 1997, the Council of Europe ratified the Convention on Human Rights and Biomedicine (Oviedo Convention), which sets out ethical principles of research and medicine relating to human life. It stipulates, among other things, that embryos may not be produced for research purposes (however, if they are left over in the context of in vitro fertilisation, their use is permitted). Eugenic sex selection through prenatal (and preimplantation) testing is also prohibited – except when used to prevent a sex-linked hereditary disease. Germany has not signed the convention due to controversy relating to the rights of disabled people and a number of regulatory gaps.

UNited Nations (UN)

The UN Convention on the Rights of the Child, adopted in 1989, states that every child has the right to know their parents (Article 7). If a child was conceived through artificial insemination with gamete transfer or through surrogacy, this right cannot be claimed everywhere, as in many countries the anonymity of cell donors and surrogates is legally protected. For some years, however, “donor registers” have been increasingly established, with information about cell donors. A report presented to the UN General Assembly in 2019 emphasises the need for minimum standards regarding surrogacy. It recommends implementing laws that prohibit the sale of children and establishing strict regulations for (commercial) surrogacy arrangements. The rights and interests of the child should be paramount.

EUROPEAN UNION

Article 3 of the EU Charter of Fundamental Rights prohibits using the human body and its parts as a source of financial gain. Thus, the commercial transfer of gametes and surrogacy is prohibited in the EU. Instead, they are to be “founded on the philosophy of voluntary and unpaid donation”. The European Parliament criticises surrogacy as a practice “which undermines the human dignity of the woman since her body and its reproductive functions are used as a commodity” and calls for its prohibition, especially in the context of global arrangements with vulnerable women.

ORGANIZATION OF AMERICAN STATES

The American Convention on Human Rights, overseen by the Organization of American States, (OAS) includes the right to found and raise a family. According to the Inter-American Court of Human Rights, that also encompasses the right to have children using reproductive technologies in cases of infertility. The corresponding articles (11 and 17) therefore have an influence on the legal regulations of the signatory states with regard to granting citizens access to reproductive technologies (see example of Costa Rica).
The global market for reproductive technologies is characterised by power dynamics. This becomes clear when we look at where reproductive work is being performed and for whom. Most fertility clinics are located in the Global North. They make enormous profits by enabling wealthy people to have children. A study of who has legal access to ART also shows how existing social power imbalances are reproduced in this field too.

- Between 2014 and 2016, the proportion of PGD treatments in the US increased from 13% to 27%.
- In Europe in 2016, genetically foreign eggs were implanted into the uterus of a person who wished to have a child on 65,000 occasions (egg transfer).
- More than ¼ of all surrogacy arrangements take place in Ukraine. Other international surrogacy hubs are Georgia, Russia, and some states in the US.
- The fertility market is growing steadily and is expected to reach a market volume of $47.9 billion by 2030.
- 24 European countries deny lesbian couples access to assisted reproduction.
- More than 50% of all reported treatment cycles take place in Europe.
- Reproductive technologies are used least often in African countries.
- 80% of recipients of egg transfers in South Africa come from abroad — especially the UK, Australia, and the US.
- Most people who use surrogacy come from the US, Australia, the UK, Western Europe, and Scandinavia.
From 2000 to 2016, Costa Rica was the only country in the world where IVF was (still) illegal. This was justified by the right to life of embryos, which were more likely to be discarded in the process of IVF. However, the Inter-American Court of Human Rights decided that an embryo cannot be equated with a human being and that the right to life therefore does not apply. In addition, the ban violated the American Convention on Human Rights and the rights to privacy, family and non-discrimination contained therein. IVF was therefore legalised in 2016. Currently, only people diagnosed with infertility are eligible for IVF. Sperm or egg transfer is permitted in this context.

Coverage of costs for IVF/ICSI in Germany is selective. Heterosexual married couples are reimbursed 50% of the costs by statutory health insurance as long as their own gametes are used. As soon as third-party sperm is involved, costs are no longer covered. Thus, queer and lesbian couples, single people and infertile men are disadvantaged. The 1990 Embryo Protection Act prohibits surrogacy and egg transfer in Germany. Originally, the ban was legitimised by the concept of “split motherhood”. The argument is that having a genetic mother who is not also the biological and social mother could be harmful to the child. However, studies from the UK refute this. The ban is currently being contested, with calls for an amendment to allow “non-commercial egg transfer”. Beyond that, the liberal party FDP and the Lesbian and Gay Association (LSVD) also advocate for the legalisation of altruistic surrogacy. Some feminist institutions and networks, on the other hand, point to the health risks for egg donors and criticise the utilisation of the female body for the interests of a third party, demanding that the ban on both practices be upheld. The coalition government elected in 2021 has announced it will set up a commission to review the law.

In many states of the US union, surrogacy is permitted for heterosexual and homosexual couples and for single people. The cost is very high compared to other countries – as much as $180,000. The market for egg transfer is largely unregulated. Those who want to use egg transfer can choose the race, appearance and educational level of the donor. The more educated the donor is and the more they conform to societal standards of beauty, the more expensive the procedure. There are also no legal regulations on the use of PGD. Accordingly, non-medical sex selection is a common practice offered by the majority of fertility clinics.
Ukraine is one of the most popular countries for people seeking surrogacy services. This is largely due to the fact that surrogacy is a legal commercial practice and so a relatively large number of people register to be surrogates. For many, it is a way to escape financial woes and to provide for one’s own family. Surrogacy in Ukraine is cheap compared to other countries (between €30,000 and €40,000 plus additional costs). However, according to the surrogacy agencies, the surrogates themselves only receive up to around €15,000. Some surrogates have stated that they earned only a few hundred euros. In addition to the varying payment levels, there are other moral and ethical problems that arise from a lack of legal regulation. For example, unclaimed babies are considered stateless, cannot be adopted, and have little access to care services. In Ukraine, only heterosexual couples who can prove they are infertile have the right to use surrogacy services. Preimplantation genetic diagnosis and non-medical sex selection are permitted in Ukraine.

In South Africa, anonymous egg transfer is legal, comparatively inexpensive, and also available to single people and unmarried couples. Since egg transfer is financially remunerated, there are many donors. As a result, there are plenty of available egg cells and no waiting time before fertility treatment begins. South Africa has thus become one of the “top addresses” for reproductive tourism worldwide. The example of egg transfer in South Africa shows how deeply entrenched racism is within the global fertility industry. For socioeconomic reasons, most intended parents are wealthy white people from the Global North – an aspect that explains why the demand for white egg donors is particularly high and why, accordingly, there are very few Black donors in South Africa. Another aspect is racialised notions of beauty. Due to aesthetic ideas about the appearance of the future child, Asian intended parents, for example, also often prefer white egg donors.

The fertility industry in India has grown rapidly in recent years. However, for a long time there was a noticeable lack of ethical standards and regulation. In 2016, commercial surrogacy was banned in response to media scandals about unclaimed babies and the exploitation of surrogates. Since then, only married Indian couples have been able to make use of the option, using altruistic surrogacy from someone in their immediate family. In December 2021, the Indian parliament passed a bill to regulate assisted reproduction. According to the bill, egg transfer should only be possible for married women with at least one child aged at least three. They are to be guaranteed insurance coverage by the intended parents. In addition, PGD is to be mandatory in IVF/ICSI to prevent genetic “abnormalities” and disease. However, sex selection is to be prohibited. All these laws are primarily aimed at protecting women and children. However, feminists have expressed concern that the bans will create a larger informal market.

Because there are few internationally binding agreements, country-specific regulations vary widely. While IVF/ICSI and sperm transfer are now either permitted or not explicitly prohibited in all countries, laws on other methods largely vary. This is partly due to the global power imbalance and unregulated international markets but also to the fact that they are controversial within the context of domestic political struggles.
European Society of Human Reproduction and Embryology
ESHRE is a multidisciplinary European association that promotes understanding of reproductive medicine and embryology and makes recommendations on EU-wide policy guidelines. In 2020, ESHRE advocated for mandatory EU-wide data collection on the efficacy and risks of reproductive technology methods. Current data collection, it said, may underestimate the risks and overestimate the effectiveness of medically assisted reproduction (MAR) strategies and treatments.

Beibei Haven Foundation
The Beibei Haven Foundation is an NGO founded in Lagos, Nigeria that is also active in the UK and Ghana. It works, among other things, to reduce the stigma and shame of infertility, miscarriage and stillbirths, and to create collective places of mourning and exchange. In addition, the annual Fertility Walk and other activities raise funds to provide low-income individuals with access to assisted reproduction.

International Committee for Monitoring Assisted Reproductive Technology
The independent non-profit organisation ICMART has been providing data on the worldwide use, effectiveness and safety of reproductive technology methods in annual reports since 1989. ICMART collaborates with ESHRE and comparable regional organisations such as the American Society for Reproductive Medicine (ASRM), the African Network and Registry for Assisted Reproductive Technology (ANARA), and Red Latinoamericana de Reproducción Asistida (REDLARA).

International Society for Mild Approaches in Assisted Reproduction
ISMAAR is a predominantly physician-led non-profit organisation based in the UK that advocates for lower-risk, less drug-intensive, and less expensive approaches to ART. One of its goals is to establish methods of egg retrieval that do not stimulate hormones or that stimulate them to a lesser degree. Although fewer egg cells are retrieved this way than with conventional treatment, this does not lead to a lower chance of success. Mild approaches may reduce health and psychological burdens on patients as well as the risk of ovarian hyperstimulation syndrome (OHSS). OHSS can occur as a result of hormone treatment, causing various symptoms and, in very rare cases, even death.
Reproductive technologies tend to be an overlooked issue within feminist movements. Only a few initiatives with a focus on ART can be found at international level. In particular, self-organisation of surrogates and international initiatives advocating for the legalisation and regulation of surrogacy seem to be few and far between. Nevertheless, there are a few projects that advocate internationally for improved access, the protection of reproductive workers, and/or an end to eugenic practices as well as against the legalization of egg transfer and/or surrogacy.

**We Are Egg Donors**

WAED is an international network of egg donors that provides support and information. In its blog, WEAD presents various case studies and research into topics related to egg transfer. For example, it questions the allegedly very low risk (less than 1%) of the occurrence of ovarian hyperstimulation syndrome and refer to studies from the United States that “indicate that far more than 1% of egg donors experience complications, some quite serious”.

**The Coalition for the Abolition of Surrogate Motherhood**

CIAMS is a campaign launched in France in 2018 that is actively supported by 36 feminist initiatives in eight countries. It vociferously supports the ban on surrogacy and opposes its regulation: “Regulating a practice violating human rights leads to the weakening of these rights. The only way to respect them is to abolish such practices.” The initiative proposes an international agreement to ban surrogacy and has published a draft on its website.

**OutRight Action International**

OutRight Action International is an NGO founded in 1990 that campaigns globally for the human rights of lesbian, gay, bisexual, trans and inter people and networks with LGBTQI activists worldwide. OutRight advises the United Nations, among other organisations, on the protection of human rights. In a general recommendation paper, it calls for the provision of viable assisted reproduction options for LGBTQI people who wish to become parents. It also explicitly criticises the precarious situation of trans people, whose fertility needs have received little attention and whose fertility is endangered by the requirement in some countries for people to be sterile before they can be recognised as a different gender.

**Stop Designer Babies**

Organised mainly in the UK, Europe and the US, Stop Designer Babies was founded in 2018 after the first genetically modified babies were born in China. The network of scientists and activists (feminist, anti-racism, environmental, and disability activists) aims to prevent “a new consumer eugenics”. The network criticises selection practices in reproductive technology – in both sperm and egg transfer and PGD – and explicitly oppose the legalisation of practices that alter the genes of embryos. “Children must not become designed commodities, judged from birth by how ‘good’ their genes are.”
HAVING A CHILD AT SOMEBODY ELSE’S EXPENSE?

Surrogacy and egg transfer are controversial. Feminists such as Melinda Cooper and Catherine Waldby conceptualise these complex practices as a form of reproductive labour, similar to childcare or nursing. This shows that surrogacy and egg transfer are an inextricable part of global commodity chains. Also, the situation of reproductive workers thus becomes framed as exploitative labour. For example, surrogates often do not have the option to leave the employment relationship. Instead, they commit to relinquishing control over their own bodies for the duration of the pregnancy and to act according to the wishes of the surrogate parents. These wishes may range from certain dietary requirements and medications to abortion. Thus, there is a strong relationship of power and dependency between the intended parents and the surrogate. However, framing surrogacy and egg transfer as labour also allows reproductive workers to be understood not exclusively as victims of the reproductive industry, but as agents who choose to engage in this form of labour. The positions of (feminist) actors on this topic diverge widely:

WAGE LABOUR

Specifically in India, where commercial surrogacy was banned in 2016, feminists such as sociologist Amrita Pande are calling for surrogacy and egg transfer to be recognised as wage labour and for international guidelines that protect all parties (including children).

ALTRUISM

Some feminists and some states criticise the emergence of a market for bodily goods and the exploitative relationships associated with it. They therefore call for the legalisation of altruistic (i.e. non-remunerated) forms of egg transfer and surrogacy only.

PROHIBITION

International feminist campaigns such as CIAMS and the German network fem:ini reject any form of surrogacy and egg transfer. They argue that both intra-European and global (neo-colonial) power relations are perpetuated when individuals from Southern and Eastern Europe and the Global South living in precarious circumstances are exploited for the reproductive desires of rich people. Altruistic surrogacy is not a viable alternative for them as they believe very few surrogates choose to do it for exclusively altruistic reasons, and that concealed forms of commercialisation (expense allowances) are used as motivation.

QUEER POTENTIAL?

In fact, assisted reproduction is ascribed subversive potential in the current discourse on queer reproduction as well. Through in vitro fertilisation, it is possible for male bodies to become pregnant or for more than two people to be involved in the process of childbearing. That allows ideologies of the heteronormative nuclear family to be transcended. And yet, who benefits from those technologies and who must provide their own bodies for them is determined by class, race, gender, physical health, age, sexual orientation, and marital status. Thus, in many places, heterosexual married couples have privileged access to certain reproductive technologies and get the costs covered, while queer reproduction is made difficult or impossible. ILGA Europe (a regional branch of the globally organised International Lesbian, Gay, Bisexual, Trans, and Intersex Association) names Hungary and Poland as the European countries where access to ART for LGBTIQ is most limited. Some queer communities are quite rightly demanding equal access to reproductive technologies. However, other voices criticise a primarily lesbian and gay discourse around the rainbow family that, in the pursuit of biological/genetic kinship through ART, conforms to a hegemonic ideal of the normative white middle-class family, thus gaining social legitimacy, while social forms of collective cohabitation – whether through co-parenting, families of choice, or other alternative family structures – remain marginalised. With the recognition of gay marriage in the United States, Australia, and some European countries, the global surrogacy and egg transfer market has grown rapidly. As a result, in 2018 same-sex married couples accounted for approximately 40% of intended parents.
REPRODUCTIVE JUSTICE

When looking at the issue of reproductive technology from the perspective of reproductive justice (an intersectional concept founded by Black feminists in the US), important questions of social justice and global power relations emerge. Whose reproduction is desired by the state? Whose rights and access to ART are implemented? Who is prevented by subtle exclusion mechanisms (e.g. selective cost coverage) from accessing these technologies? Furthermore, whose reproduction is supported through surrogacy, for example? Whose bodies are used to fulfil the desire for a child? Reproductive justice reminds us to not only look at things from our own individual position, but to recognise how it relates to other individuals and marginalised communities. For example, it is not enough to demand access to surrogacy on the basis of our individual right to have a family without also thinking about the people who must then perform this reproductive labour. Those people must be given a louder voice and greater agency. We must work together to find out how power imbalances and dependencies can be reduced or eliminated. Could globally applicable guidelines help? Or is surrogacy always a human rights violation that must consequently be abolished in all its forms? According to feminist academic and activist Laura Mamo, the first step is to take responsibility and “understand the structural and interpersonal inequities inherent in and productive of the global bio-economy of assisted reproduction”.

THE “RIGHT” GENES?

Preimplantation genetic diagnosis is used in most countries primarily to avoid the transmission of genetic disorders. The aim is to improve the quality of life of the child and the wellbeing of the family. Fertility clinics and other proponents of the practice also emphasise that selecting the highest quality embryos significantly reduces the likelihood of miscarriage, thus avoiding psychological distress to the pregnant person. Some elements in pro-choice movements emphasise the pregnant woman’s right to self-determination, and thus support PGD from this position. However, feminists and disability activists critical of the practice see PGD primarily as a eugenic selection technology based on a deficit-oriented image of disability. Life with a disability is seen as not worth living and/or as “unnecessary suffering” and is considered a risk in reproductive medical settings. Moreover, according to journalist Ulrike Baureithel, PGD provides no guarantee that the child will be born without a disability since up to 90% of disabilities arise only during or after birth in any case. So instead of investing in selection based on optimisation and capability, feminists and disability activists are calling for the establishment of social structures that do not discriminate against disabled people.

A great deal of controversy surrounds the use of PGD and other reproductive technology methods to “manufacture” children with certain characteristics – especially since the first genetically modified babies were born in China in 2018. Feminists criticise a trend toward consumerist childbirth in which intended parents can pay a lot of money to shape their child in accordance with their ideals. Sex selection is already common practice in some countries, and the selection of eggs from certain donors, as is possible in the US and South Africa, is similarly questionable. Such practices can contribute to the perpetuation of sexist, racist and ableist ways of viewing the world. Gender scholar Ute Kalender, for example, speaks of PGD as a “whitening technology […] that gives preference to white babies and screens out Black embryos/foetuses.”
SOURCES AND FURTHER READING

- Belmonte, Eva et al. (2021): “More than half of European countries prohibit access to assisted reproduction for lesbians and almost a third do so for single women”. Accessed on 14 February 2022: https://civio.es/medicamentalia/2021/11/02/ART-EU-access/
- Monama, Tebogo (2020): “Young Afrikaans women travelling around the world to sell their eggs for up to R50k”. Accessed on 14 February 2022: https://www.iol.co.za/the-star/news/young-afrikaans-women-travelling-around-the-world-to-sell-their-eggs-for-up-to-r50k-ab6bba44-4b25-4b02-bf34-92cdd44cda70

IMPRINT
Published by the Global Unit for Feminism and Gender Democracy and the Gunda Werner Institute of the Heinrich Böll Foundation, April 2022
Research: Gesine Agena, Petra Hecht, Dinah Riese and Anthea Kyere
Text: Anthea Kyere
Concept: Derya Binışık and Jana Prosinger
Design: Maja Ilić
This work is made available under the terms of the Creative Commons Attribution-ShareAlike 4.0 International (CC BY-SA 4.0 DE) licence. Full details of this licence are available at: https://creativecommons.org/licenses/by-sa/4.0/legalcode. A summary of (and not a substitute for) the licence is available at: https://creativecommons.org/licenses/by-sa/4.0/deed.en