



Food and Agriculture
Organization of the
United Nations



ROTTERDAM CONVENTION

ADDRESSING HAZARDOUS CHILD LABOUR AND REDUCING RISKS POSED BY HAZARDOUS PESTICIDES



TECHNICAL NOTE

FOR AGRICULTURAL STAKEHOLDERS



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KEY MESSAGES



Half of the world's labour force (estimated **1.3 billion** workers worldwide) is employed in the **agriculture sector**.



Agriculture is one of the top three most dangerous sectors (ILO, 2020), with millions of workplace accidents including poison-related incidents involving pesticides and other agrochemicals.



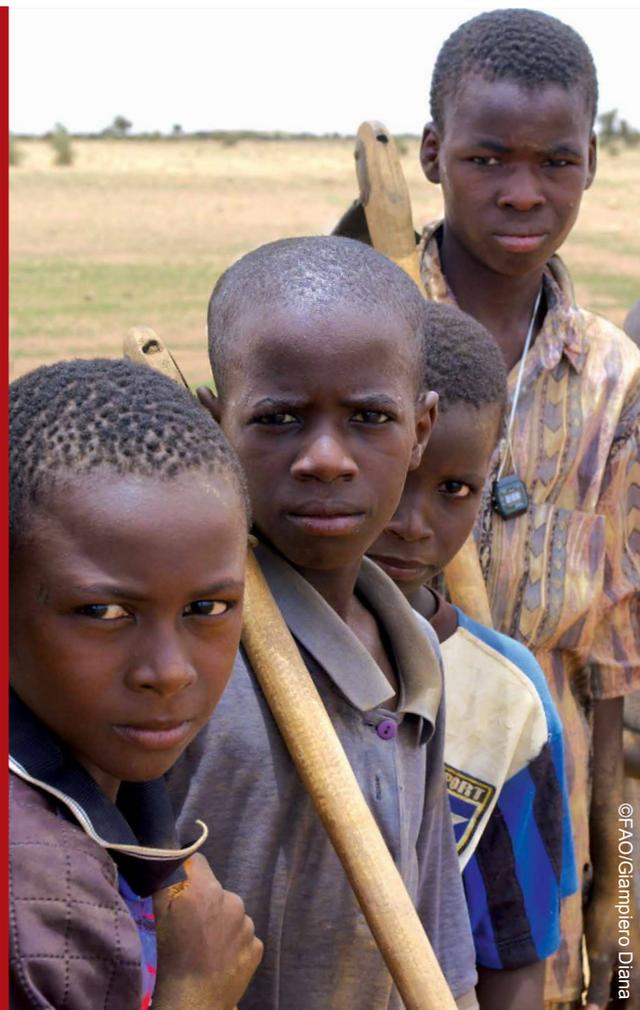
Agricultural workers in remote rural areas often lack access to health, information, training services and personal protective equipment required to adequately respond to health hazards.



Deaths, injuries and occupational diseases in the agriculture sector **tend to be widely under-reported**.

OCCUPATIONAL SAFETY AND HEALTH (OSH) CHALLENGES IN THE AGRICULTURE SECTOR

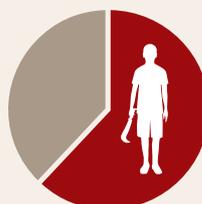
- 1. Inadequate protection of agricultural workers under national labour law:** Some countries specifically exclude the agriculture sector from general labour legislation and/or OSH legislation.
- 2. Poor application and enforcement of relevant legislation:** Labour inspectorates often have insufficient resources and training, and inspectors rarely visit rural enterprises such as farms, unless transport is provided.
- 3. Lack of accessibility and affordability of personal protective equipment (PPE):** When PPE is available, farmers can sometimes be reluctant to use it because of discomfort, especially in harsh climates.
- 4. Limited data and research on the global extent and severity of farm work-related incidents, diseases and injuries:** Not all incidents are registered, and this is also the case for hazardous pesticides.



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The fatality rate among young workers on a global scale is **four times higher in the agriculture sector** than in other industries (Hard and Myers, 2008).



Agriculture accounts for the majority (62 percent) of children in hazardous work worldwide (ILO, 2018).



Children are particularly vulnerable to hazardous work in the agriculture sector.



When children below the age of 18 are involved in hazardous work, it is considered **child labour**.

In the agriculture sector, the 73 million children in hazardous work come from all age groups. In general, children in the 15–17 years cohort tend to carry out more hazardous work, but younger age cohorts also undertake hazardous work, even children as young as 5 years old.

According to the International Labour Organization (ILO) 2017 **Global estimates of child labour**, in Africa, agriculture accounts for 85 percent of all child labour in absolute terms, and 9 percent of African children are involved in hazardous work – the highest of all the world’s regions.

ILO Global estimate from 2012-2016

| | Children in employment | Children in child labour | Children in hazardous work |
|-------------------|------------------------|--------------------------|----------------------------|
| AGE RANGE (YEARS) | | | |
| 5-17 | 218 019 000 | 151 622 000 | 72 525 000 |
| 5-11 | | 72 585 000 (8.3%) | 19 020 000 (2.2%) |
| 12-14 | | 41 887 000 (11.7%) | 16 355 000 (4.6%) |
| 15-17 | | 37 149 000 (10.5%) | 37 149 000 (10.5%) |

WHAT IS CHILD LABOUR?

Child labour refers to work that:

- engages children below the minimum age for employment;
- interferes with compulsory schooling;
- is hazardous; and/or
- is mentally, physically, socially or morally dangerous and harmful to children.

The worst forms of child labour are:

- all forms of slavery (trafficking, debt, bondage or forced labour);
- prostitution or pornography;
- illicit activities (trafficking, illegal logging or fishing, or drugs/opium production); and
- hazardous work, which by its nature or circumstances is likely to harm the health of children.

The age of the child matters:

- **Under 12/13:** children should not engage in agricultural work but can learn and attend to simple and safe tasks.
- **Between 12/13 and 14/15:** children can engage in light work in agriculture, out of school hours and under strict conditions.
- **Above 14/15:** children can work in agriculture full time but cannot undertake hazardous work or any other form of the Worst Forms of Child Labour.

Not all tasks undertaken by children in agriculture are considered child labour.

Age-appropriate tasks in agriculture that are safe and do not interfere with compulsory education can, on the contrary, help children learn useful agricultural and life skills.

Source: Minimum Age Convention, 1973 (No. 138) and Worst Forms of Child Labour Convention, 1999 (No. 182).

Given that agriculture accounts for the largest portion of child labour and is one of the most dangerous sectors, often with limited occupational safety and health (OSH) regulations, a special focus is needed on hazardous child labour.

Pesticides represent a serious health risk for rural workers and communities. Children are a particularly vulnerable group, and addressing their exposure to pesticides and agrochemicals should be made top priority.



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RISKS AND HAZARDS RELATED TO PESTICIDES EXPOSURE

- **Risk** is the probability and severity of an adverse health or environmental effect occurring as a function of a hazard and the likelihood and extent of exposure.
- **Hazard** is the inherent property of a substance, agent or situation having the potential to cause undesirable consequences (e.g. properties that can cause adverse effects or damage to health, the environment or property).

Exposure to pesticides can occur during a wide range of tasks, from manufacture and packaging of the pesticide to distribution, storage, use and disposal.

Not everyone is equally exposed to pesticides and some groups can be more vulnerable than others. Vulnerable groups include pregnant and nursing women, the unborn, infants and children, the elderly, people affected by HIV/AIDS and, when subject to high exposure to pesticides in the long term, workers and residents.

Vulnerability refers not only to biological vulnerability but also to social and economic vulnerability linked to poverty and food insecurity. Those who experience the latter may be further at risk, especially in rural areas, where there may be limited access to decent work opportunities, information related to health and safety, personal protective equipment and healthcare.

CHILDREN'S EXPOSURE TO CHEMICAL PESTICIDES



AT HOME

If pesticides are **unsafely stored at home**, or if **empty containers** are used to store **food** or carry drinking water.

When **performing tasks** that may seem harmless such as **washing clothes that have been in contact with pesticides**.



AT PLAY

When they **play in fields where pesticides have been applied** or through **pesticide drift**.

Touching the plants or **just breathing the air where pesticides were used** exposes them to dangers.



AT WORK

Children are exposed to pesticides when **involved in the mixing and preparation phase**.

Children are also exposed **when applying pesticides**. This includes spreading pesticides by hand or by using a back-sprayer.





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Why are children more vulnerable to risks related to pesticides?

BIOLOGICAL REASONS

Children's **minds and bodies are still developing.**

The lower body weight and smaller size of children, combined with their faster rate of breathing and higher surface-area-to-volume ratio, result in **greater exposure to pesticides.**

Children's organs are **less able to eliminate pesticides.**

The **high growth rate of children amplifies the toxic effects on developing cells and organs,** which may only manifest years later.



BEHAVIOURAL REASONS

Children's likelihood of ingesting pesticides is higher due to **greater 'hand-to-mouth' behaviour.**

Children have **lower capacity and skills to assess risks** when working with or close to pesticides.



SOCIO-ECONOMIC REASONS

Poverty is both a cause and a consequence of child labour.

Therefore, social and economic factors can also influence the level of vulnerability to hazardous pesticides. Vulnerable groups may be forced to choose between their health and their income.

In rural areas, **workers are often poorly covered by labour law and access to social protection, personal protective equipment, health care and information can be limited.**



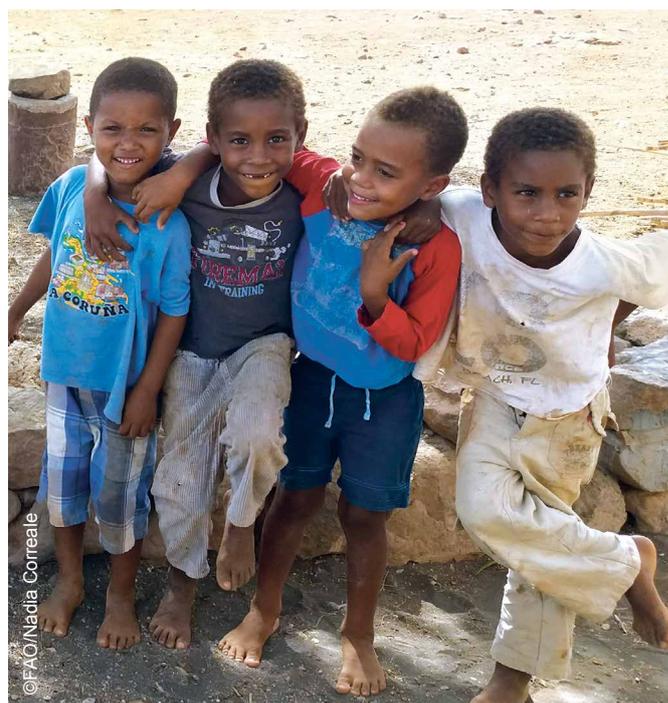


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On-farm and off-farm exposure

Children are exposed to pesticides and other agrochemicals both on and off the farm due to:

- **repackaging of pesticide containers for alternative uses** (e.g. drinking bottles or essential oil containers);
- **limited availability of PPE**;
- **lack of training in pesticide application, storage and disposal**;
- **poor knowledge** of pest management and alternative strategies; and
- **absence of labelling** due to illegal repackaging or labels being only available in foreign language.



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Limited national and regional knowledge on pesticide poisoning

Few countries have the capacity to adequately record all pesticide poisoning. Reliable estimates on poisoning exposure and incidents, types of pesticides used and patterns of use are often unavailable, mainly due to:

- **lack of standardized case definition and of disaggregation by age, sex and sector;**
- **absence of traceability** in the informal sector;
- **misdiagnosis and under-reporting** by healthcare providers;
- **exclusion of non-hospitalized cases;**
- **lack of readily accessible healthcare** in rural populations; and
- **acceptance by workers that adverse health effects are to be expected.**

Did you know that between 2007 and 2011, 10–19-year-olds accounted for 12 percent of all pesticide poisoning in Brazil?

Source: [UFBA, 2012](#).



What is the role of agriculture stakeholders?

Environmental Protection Agency

- **Support** the application of labour standards in the agriculture sector.
- **Monitor and evaluate** the use of pesticides in agriculture.
- **Promote** and adopt safe and sustainable farming practices in collaboration with ministries.
- **Work with other authorities** to address the illegal packing and import of pesticides.

Ministry of Labour

- **Support** the application of labour standards in the agriculture sector.
- **Enhance** collaboration with other ministries to promote OSH measures in agriculture and address child labour.

Ministry of Agriculture

- **Implement** agricultural policies and programmes to address child labour in agriculture.
- **Promote** alternatives to hazardous farming practices.
- **Ensure** that all staff are aware of child labour concerns in their area of expertise.
- **Lead process** of accurate age- and sex-disaggregated data collection on occupational exposure to pesticides in the field.
- **Enhance collaboration** with other ministries such as labour and health.

Civil society organizations

- **Advocate** for safer work conditions in agriculture.
- **Engage** with communities to address child labour and its root causes.
- **Support** the elimination of hazardous pesticides.

Extension agents and workers

- **Develop** capacities and raise awareness of farmers.
- **Promote** sustainable agricultural practices.
- **Support** the use of PPE among farmers.

We all have a role to play in eliminating hazards related to pesticides, protecting children and families and improving sustainability in agriculture.



Producer organizations

- **Train** farmers on safe practices and improved OSH standards.
- **Raise awareness** on the negative impact of child labour.
- **Support** the uptake and integration of labour-saving technologies.

Farmers and families

- **Ensure** that children only carry out non-hazardous, age-appropriate tasks that do not interfere with education.
- **Support** other community members in awareness raising.
- **Ensure** a smooth transition towards safer, more sustainable agricultural practices.



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What is the role of FAO?

Identify

high-risk and hazardous scenarios as well as vulnerable groups.

Raise awareness

among vulnerable groups including children in many regional contexts.

Collaborate

with various stakeholders to detect and reduce the risks posed by hazardous pesticides.

Change

situations of child labour into decent youth employment for the age cohort 14/15–17 by eliminating work-related hazards.

Contributing towards the achievement of the Sustainable Development Goals (SDGs)



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FAO'S GLOBAL MOMENTUM AND CROSS-SECTORIAL APPROACH

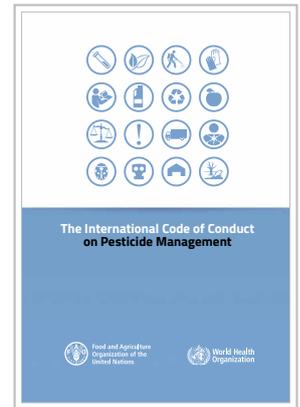


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FAO is raising awareness, strengthening knowledge and building capacity across the globe to reduce and prevent children's exposure to pesticides. FAO has country and regional offices around the world and thus the distinctive capacity to reach and support rural and more vulnerable populations, including smallholder producers.

Addressing child labour concerns in global mechanisms on pesticide management

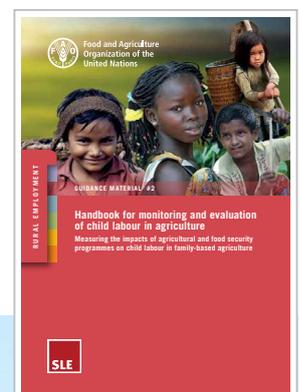
In 2013, a revised **International Code of Conduct on Pesticide Management** was approved at the Thirty-eighth Session of the Food and Agriculture Organization of the United Nations (FAO) Conference and subsequently also by the Governing Council of the World Health Organization (WHO). The revised code pays specific attention to the health and well-being of children, encouraging governments and the pesticide industry to take specific actions to reduce children's vulnerability to exposure.



Supporting policymakers in the phasing out of hazardous pesticides and addressing child labour

The **Severely Hazardous Pesticide Formulations SHPF toolkit** developed by the Rotterdam Convention Secretariat provides guidance on setting up a national system to record and submit details on pesticide poisonings and incidents, and on strengthening decision-making, improving pesticide risk reduction and phasing out hazardous pesticides at the national level.

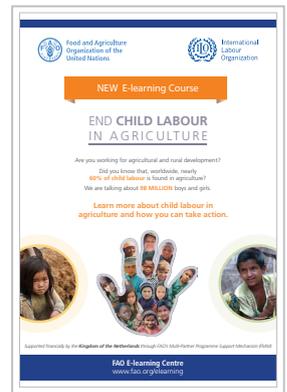
The **Handbook for monitoring and evaluation of child labour in agriculture** offers guidance and tools for assessing the impacts of agricultural and food security programmes and projects on child labour in family-based agriculture.



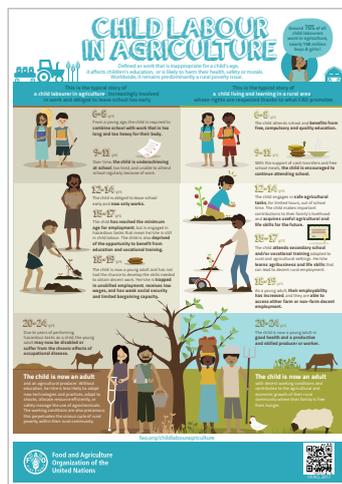
Raising awareness on children's exposure to pesticides

In 2018, FAO presented the topic of pesticide management and hazardous child labour during the thirty-second International Congress on Occupational Health (ICOH). In 2019, FAO contributed to the OSH Africa Conference – the first event in Africa aiming to bring together stakeholders from across the region and beyond to discuss the existing OSH challenges in Africa.

The FAO–ILO e-learning course, **End Child Labour in Agriculture**, includes a special course on **Pesticide management and child labour prevention** designed to build capacity to reduce hazardous child labour through improved pesticide management.



Examples of training material developed



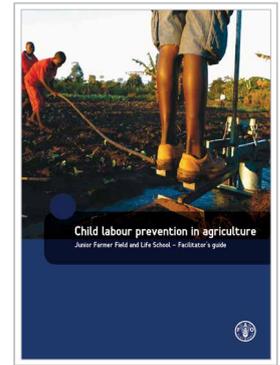
The widely used FAO–ILO visual tool, **Protect children from pesticides!**, helps agricultural extension workers, rural educators, labour inspectors, producer organizations and others to teach farmers and their families how to identify and minimize risks related to pesticides at home and on the farm.

The guide is available in Arabic, English, French, Portuguese, Russian and Spanish and has been adapted to six regions around the globe.



Engaging youth in alternatives to pesticides

FAO's junior farmer field and life schools (JFFLSs) approach raises awareness on child labour through the module on **Child labour prevention in agriculture**, and includes good agricultural practices that can minimize the use of pesticides and make working in agriculture safer for youth.



Strengthening collaboration for capacity development

FAO delivers capacity building programmes at national, sub-regional and regional level, bringing together different stakeholders and building fruitful collaboration. This includes an annual presentation to the Vula Pesticide Discussion Forum of the University of Cape Town's postgraduate programme on Pesticide Risk Management.



REGIONAL AND COUNTRY LEVEL ACTION



1 GHANA

- **Technical working** committee formed.
- **Capacity development** programme implemented.
- **2 000 copies** of *Protect children from pesticides!* distributed nationwide.

2 GUINEA-BISSAU

- **Survey carried out in rural communities** to detect pesticide poisoning cases.
- **Awareness-raising** accomplished among farmers.
- **Awareness-raising campaign** conducted on local community radio.

3 LEBANON

- **Storybook for younger** and illiterate children developed on eliminating children's exposure to pesticide in collaboration with the United Nations Children's Fund (UNICEF).
- **OSH in agriculture APP** developed for youth.

4 MALAWI

- **Pesticides control boards** engaged to integrate child labour concerns into extension materials.
- The idea and first pilot version of the **facilitator's guide** on protecting children from pesticides was born.

5 MALI

- The idea and first pilot version of the **facilitator's guide** on protecting children from pesticides was born.
- A **Farmer Field School (FFS) module** on child labour, in the context of Integrated Pest Management learning, piloted.

6 NIGER

- A **manual for plant protection** officers on hazardous child labour realized.

7 PAKISTAN

- **FFS module** currently under development on addressing child labour and hazardous work and improving human health.

8 UGANDA

- **Capacity development training** carried out nationwide.
- **Research generated on hazardous work** in the dairy and maize value chain.
- **Tool developed on protecting young workers** from hazardous work.

SUCCESS STORIES FROM THE FIELD



Testimonial from **Guinea-Bissau**

Reducing risks and promoting alternatives to hazardous chemicals in Guinea-Bissau

In 2018, in different regions of Guinea-Bissau, farmers were involved in group discussions led by officers of the Rotterdam Convention Secretariat together with local non-governmental organization (NGO) staff and technicians of the Plant Protection Department of the Ministry of Agriculture. Farmers were sensitized on the risks of hazardous pesticides; they learned about different exposure routes and vulnerable groups. They also received training on safe practices and alternatives to hazardous pesticides, with sessions conducted at market selling points and on the farm. The response of the farmers was very positive.

To raise awareness in remote communities, a community programme was broadcast on local radio, transmitting messages in the local languages on the risks posed by highly hazardous pesticides. In addition, a video was developed to explain the risks posed by pesticides and promote alternatives to hazardous chemicals. The experience of Guinea-Bissau, including the video, was shared among Portuguese-speaking countries in regional meetings. In order to reach a broader audience of pesticide management experts, the video was also screened at a side event on “Alternatives to hazardous chemicals in SIDS (Small Island Developing States) countries” during the Conference of the Parties to the Rotterdam Convention held in Geneva in May 2019.



©Agriculture Center of Marjoun, Lebanon

Testimonial from Lebanon

Using FAO tool *Protect children from pesticides!* in the classroom to raise awareness on the harmful effects of pesticides and promote protective equipment

In Lebanon, Mr Fouad Wansa is the Head of the Agricultural Center, an Extension Officer of the Ministry of Agriculture in Marjeyoun, South Lebanon. He also teaches 15–18-year-old students at the local Technical Agriculture School.

He found the *Protect children from pesticides!* visual guide extremely useful: “This simple, practical, clear and informative tool has helped me transfer important information to my young students. I will continue to use the guide, implementing related activities to make learning effective, interactive and pleasant, also in monthly extension sessions with farmers.”

Mr Wansa participated in an extensive two-day FAO training in 2017 on child labour and occupational safety and health in agriculture with a special focus on child protection. The sessions were conducted across the seven Lebanese governorates, targeting Ministry of Agriculture staff, child protection workers and farmers.

“We have a growing number of farmers open to reducing child involvement in agricultural practices, with young educated farmers fully respecting protective measures and actively working to reduce the harm caused by agricultural labour – a great success.”



Testimonial from Uganda

Partnering with farmers, schools and government to protect children and young workers from pesticides in Uganda

In 2017, over 1 700 copies of the visual guide *Protect children from pesticides!* were distributed across Uganda to raise awareness in farming communities. In August 2017, FAO Uganda met

Ms Gertrude Badaru, the district agricultural officer in Arua District (home to 252 250 South Sudanese refugees, 61 percent of whom below 18 years of age). She confirmed that unsafe use of pesticides was a major problem in farming communities in Arua and people were unaware of the dangers.

Following her participation in an FAO/ILO training programme, Ms Badaru went on a radio talk show to sensitize the public about the dangers of pesticides. The feedback was overwhelming, with listeners shocked at the potential dangers of pesticides, especially to children. Consequently, the Agriculture Department conducted more radio talk shows to sensitize the public about the visual guide and the dangers of pesticides to children, targeting schools and farming communities. Ms Badaru pledged to use her technical expertise to train her fellow extension workers in Arua District and to continue with public sensitization programmes on occupational safety and health for young workers and child labour.

REFERENCE MATERIALS



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INTERNATIONAL LABOUR CONVENTIONS

[Minimum Age Convention, 1973 \(No. 138\)](#)

[Worst Forms of Child Labour Convention, 1999 \(No. 182\)](#)

[Promotional Framework for Occupational Safety and Health Convention, 2006 \(No. 187\)](#)

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