



Operation Bee For Future

Adventure Book



START



Sitting at her desk, Ramona is eating bread and honey, her favorite food, her madeleine, which reminds her of her childhood.

As she savours every bite, she thinks about her new job, which she has just started in the Directorate for Development Cooperation and Humanitarian Aid at the Slovenian Ministry of Foreign and European Affairs.

CONTINUE

Her mind drifts back to her time as a medical volunteer in Madagascar. Shortly after arriving, she realised she had fallen ill; the symptoms were mild and kept at bay thanks to the vaccine she'd had before leaving, but still annoying enough to make her anxious.

"I can't stand this Covid any longer; I feel tired and I'm struggling a bit to breathe. It's an absurd situation: medicines from Europe are stuck at the port because of the quarantine, and we can't get any Covid vaccines," said Ramona despondently.

"We are truly grateful to your team for coming to help us. It's not a medicine, but it can help soothe your cough. Although the drought arrived earlier this year due to climate change, our bees have still found their way to the flowers of the cacti and the native trees. Nature is fighting! Just as you must." Riantsoa, a Madagascan medical volunteer, told her.

Ramona looked at her sideways: "You know I only believe in science, not miracles. It's a virus, not a spell."



CONTINUE



Riantsoa handed Ramona a small wooden container filled with liquid: “This is our drink, made with artemisia. Since we have no Western medicines or vaccines, our President has suggested drinking it to boost the immune system. He has also sent several shipments to various African countries.”

Ramona didn’t know whether to get angry or smile at her naivety, but she simply shook her head; after all, she didn’t want to offend her, Riantsoa was, after all, a kind person.

“I’ll just have the honey, my grandmother used to put a little in her milk when she was little, too. But I’m sure the vaccine will do the job.”

CONTINUE

Tambavy CVO Covid-Organics is a herbal drink that was promoted in 2020 by Madagascar's President Andry Rajoelina as a preventive and curative remedy against COVID-19 and was distributed free of charge to part of the population. The drink, based primarily on *Artemisia annua*, was produced by the Madagascar Institute of Applied Research (IMRA), a research institute in the African country. *Artemisia annua* contains artemisinin, an active compound used, in combination with other medicines, to treat malaria.

At the time the product was launched, there was insufficient clinical evidence to demonstrate its effectiveness against COVID-19. The World Health Organization stressed that traditional remedies proposed for the prevention or treatment of COVID-19 needed to undergo rigorous clinical trials. Subsequent scientific evidence has not demonstrated that artemisinin, *Artemisia annua*, or its extracts are effective in preventing or treating COVID-19.

Charles Andrianjara, Director General of IMRA, also stated in 2020 that Covid-Organics could not be considered a medicine in the scientific sense and that further studies were needed to assess its effectiveness.

In April 2020, Madagascar's National Academy of Medicine (ANAMEM) also initially expressed serious reservations, highlighting the lack of sufficient scientific evidence regarding the product's effectiveness and safety.



She poured the creamy honey into a cup and added a little milk.

Riantsoa said, "It's mokaarana honey, used to soothe coughs and sore throats. There's energy in this honey."

Ramona opens her eyes, emerging from her memory. She dips a finger in honey like she did as a child and lets it melt in her mouth, savoring its sweetness, to end her long workday.

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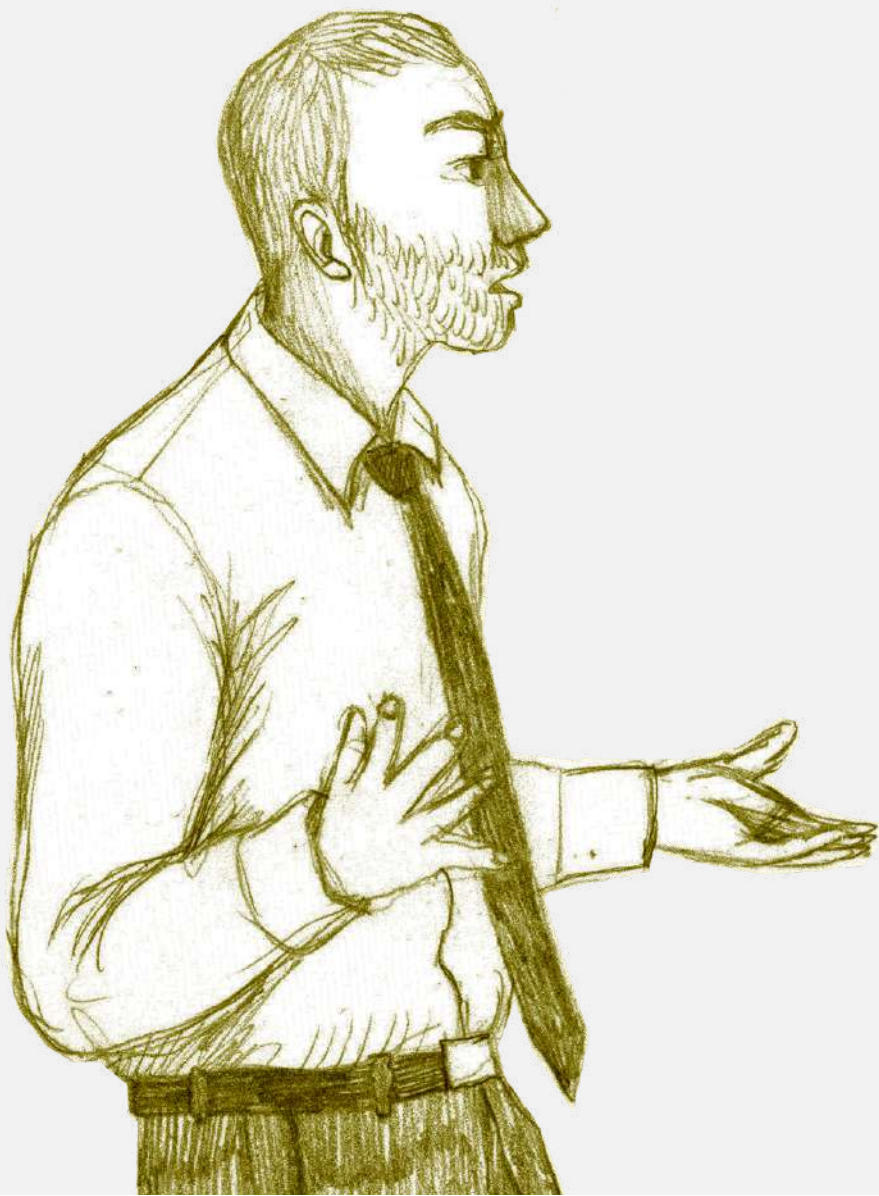
Two years of relative peace have now passed since the end of the wars that devastated almost all of the 1920s. Ramona, however, is still concerned about the continuing interruption of energy supplies from Russia and the Middle East, a situation that has plunged Slovenia into extreme difficulty.

Her train of thought is interrupted when her boss, Jože, walks into the office without knocking. Ever since her first few days there, she has felt a deep dislike for him and always feels uncomfortable in his presence. Without saying hello, Jože sits down on her desk.

“Buying American gas has become too expensive; we should use the lignite that is abundant in the region and convert all heating systems to biomass.”

Every time he speaks to her, Ramona feels as though Jože is throwing her thoughts into disarray, as if with a single gesture he were causing her documents to fall off her desk; Ramona holds back her indignation as she tries to reply: “Relying on lignite and biomass will lead to higher greenhouse gas emissions...” she says in a seemingly calm voice.

CONTINUE



“Don’t always be so idealistic. Fossil fuels and rare earth materials are in short supply, and we want access to them too. Producing countries are trying to exploit strategic competition among buyers to negotiate greater added value. They want to capitalise on their mineral, oil and gas resources through downstream processing, manufacturing and the development of regional value chains.”
Jože says bluntly.

CONTINUE



Ramona looks down so as not to stop herself from telling him to get lost, trying to think of what to say and how to address the NGO representatives. Her job, after all, is to liaise with the NGO representatives and act as a spokesperson for the initiatives her organisation intends to undertake. However, she is well aware that the NGOs will remind her of the promises made by Slovenia at the COPs on climate change, and this new initiative worries her. She also thinks that these initiatives proposed by her boss could undermine the beekeeping project she cares so much about.

CONTINUE



COP30, held in November 2025 in Belém, Brazil, strengthened the implementation of international climate commitments, including the target, agreed at COP28, to triple global renewable energy capacity by 2030. COP30 also saw the launch of the Tropical Forest Forever Facility (TFFF), a new financial mechanism that combines public and private investment to support the conservation of tropical forests through long-term funding for countries that protect them. By the end of COP30, the TFFF had secured financial commitments totalling \$6.7 billion from its sponsoring countries.

Ramona also knows that Slovenian NGOs expect her Directorate to provide more ODA, including for projects led by NGOs.



After spending a sleepless night trying to find a solution, she decides to take action and goes to see Jože the following day:

“Good morning, Jože, I’d like to talk to you about a few aspects of your project that are causing me concern. I must also point out that some NGOs fear their reputation in international projects may be compromised because of these partnerships with companies that are slowing down action on climate change and environmental protection. I’ve given all this a lot of thought, and I reckon that, to balance things out, we could suggest a project on honeybees: it might be a project everyone can agree on!” She says it all in one breath, scrutinising Jože’s face to gauge his reaction.



CONTINUE



According to preliminary OECD DAC figures published in April 2026, Official Development Assistance (ODA) provided in 2025 by members and associates of the OECD's Development Assistance Committee (DAC) totalled \$174.3 billion.

This total represents just 0.26 per cent of their combined gross national income (GNI), far below the international target of 0.7 per cent of GNI allocated to ODA, which has been adopted by many developed countries and reaffirmed in the United Nations 2030 Agenda.

In 2025, Slovenia's ODA amounted to 0.22 per cent of Slovenia's GNI.



To her great surprise, Jože accepted enthusiastically: “Yes, I agree, I think you’re right. It’s been more than ten years since the United Nations unanimously proclaimed 20 May as World Bee Day, a global initiative led by our country.” He says to her with a smile.

Ramona is excited, she’s like a river in flood; a project involving bees has always been her secret dream. Her eyes sparkle as she launches into a detailed description of the virtues of these insects: “Bees are vital for mitigating climate change, because they maintain healthy ecosystems, increase biodiversity and support reforestation,” she says, gesturing and moving her hands to emphasise every word, “...they enhance the carbon sequestration potential of grasslands and forests, facilitating plant reproduction and ensuring healthy vegetation growth... Furthermore, sustainable beekeeping offers low-impact, cost-effective alternatives to fossil-fuel-intensive livelihoods.” Ramona is unstoppable.



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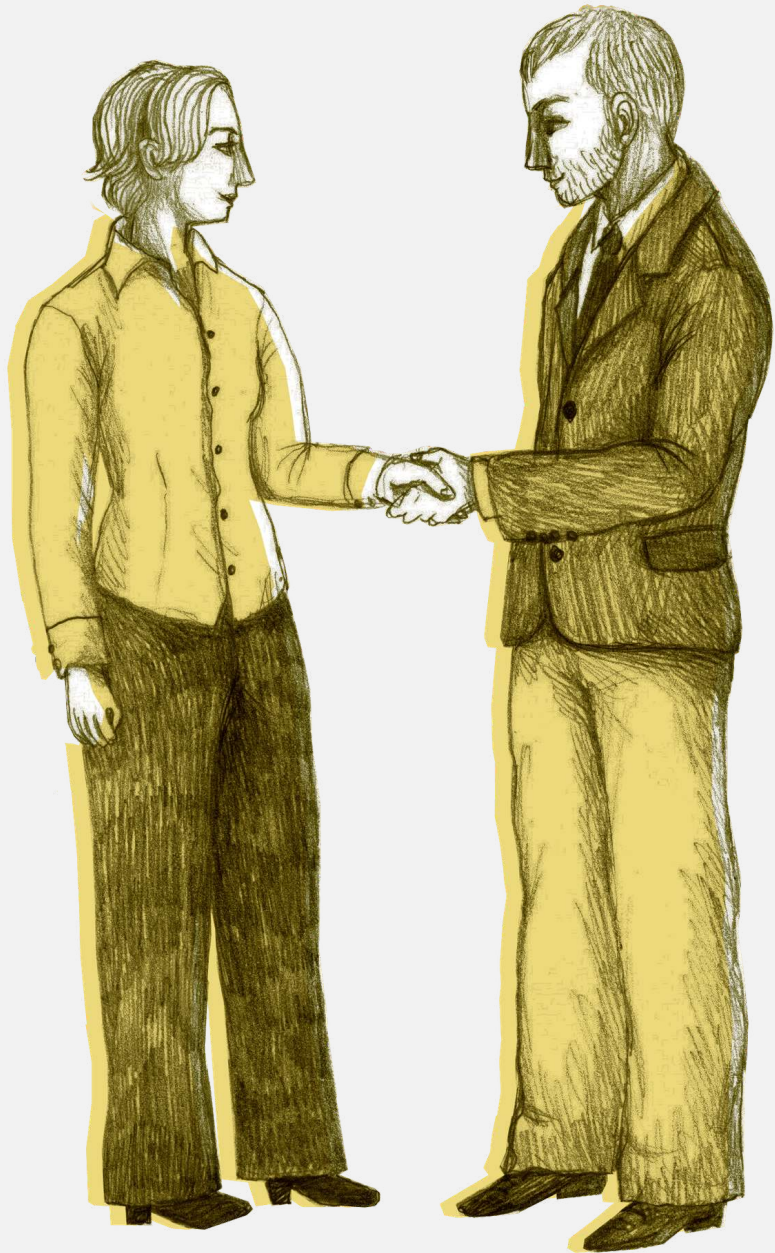
Scientific pop-up

The Carniolan honey bee (*Apis mellifera carnica*) is a native subspecies of Slovenia, where it is subject to special protection. It is the second most widespread subspecies of honey bee in the world. Beekeeping in Slovenia, regarded as a way of life, has been included on UNESCO's Representative List of the Intangible Cultural Heritage of Humanity.

The Carniolan honey bee is now widely reared outside Slovenia as well.

Slovenian knowledge and experience in the field of sustainable beekeeping are also shared through international cooperation projects. In Zambia, a project carried out by ADRA Slovenia and funded by the Slovenian Ministry of Foreign and European Affairs supports training in sustainable beekeeping, the improvement of beehives, the production and marketing of bee products, and reforestation initiatives.

The Beekeeping Academy of Slovenia also took part in a two-year pilot project in Bangladesh, carried out in collaboration with BRAC, which enabled the transfer of beekeeping knowledge and practices and the testing of a European-style beekeeping model in the local context.



“You don’t need to say any more,” says Jože with a laugh, rubbing his hands together – a gesture that helps him think – and immediately adds: “I’m thinking of Rwanda; as you know, it’s one of Slovenia’s partner countries in Africa. Do you think beekeeping could work there?”

Ramona’s eyes light up as she replies: “I think so. We could take our Carniolan bees there and work with the local African bees as well. What do you think?”

CONTINUE

Jože, however, has other ideas in mind.

The new proposal dampens Ramona's initial enthusiasm. For him, commercial considerations are more important than humanitarian or environmental ones. In fact, he takes her aback by saying:

"If we fund humanitarian projects abroad, we must also get something in return for our companies. Since concessions for rare earth minerals and oil in other parts of Rwanda have already been awarded to companies from other countries, the only area still available for our businesses is that around the Gishwati-Mukura UNESCO Biosphere Reserve, where there are potential deposits of lithium, coltan, tantalum, tin and tungsten."

Ramona becomes cautious again and replies in a sorrowful voice:

"But this area is protected. Are we simply introducing our Carniolan bees alongside support for native African bees, to help local beekeeping, given that the pesticides sold by European companies, despite being banned in the EU, are killing large numbers of local African bees?"

CONTINUE

Jože, laughing: "Ramona, you're still the same old idealist!"

Ramona shakes her head and carries on undeterred: "The bees are in danger! It's not just climate change that's having a negative impact: for example, the longer rainy season makes beekeeping difficult, but synthetic pesticides are a real scourge: the use of these substances affects the navigation and reproduction of African bees; not to mention colony collapse: swarms of worker bees are abandoning the hives," she adds, growing increasingly agitated, "... Instead, we propose the use of pyrethrum flowers, which grow wild in Africa and can be used as a natural pesticide... If, on top of all this, we were to start mining operations as well, the local ecosystem would be under even greater threat," says Ramona.



CONTINUE



Bees and other pollinating insects contribute to the pollination of numerous crops grown in Rwanda, including coffee, avocados, mangoes, beans and tomatoes. A 2023 study of 71 crops grown in the country found that 62 per cent of the crops analysed were directly dependent on pollinating insects. For the economic assessment, the authors considered 32 representative crops and data for the years 2014 and 2020: in both years, the share of production value attributable to pollinating insects exceeded \$100 million.



"All right, let's do it this way: I'll take care of the commercial side..." says Jože irritably,
"... and I'll handle the humanitarian side,"
replies Ramona with a sigh, only to be interrupted again by Jože:

"You've got five days to find potential partners,"
he adds in a threatening tone, "and get the project ready. Otherwise, we'll go there with just the commercial side... Contact your potential partners and draw up the concept for your sustainable project."



RAMONA'S CHOICE



She has an idea, but can't meet the deadline. Go to page 14



She brings together interested NGOs and sustainable businesses to draw up the project plan. Go to page 17

Seated around a large round table, Jože has organised a meeting with Slovenian companies, potential partners.

Speaking in a firm voice, he looks at each of his colleagues in turn:

“Welcome. I have brought you all together here today to discuss a project concerning Rwanda. Our government will cover the cost of accessing the resources, and my colleague Ramona will draw up a sustainable project involving bees.”

CONTINUE



Andrej, a representative of one of the companies, steps forward to speak on behalf of everyone:



“Excellent. We have no issues on our end; in fact, based on the notes sent, we have already drawn up a strategic plan and a division of roles: some will provide satellite data, others will conduct geological surveys, and others will supply the necessary equipment. At the end of the supply chain, there will be other companies producing high-quality goods from these resources. We can make a good profit there. Just make sure we have all the necessary permits to start work, so we don’t run into any problems with the local population or any environmental groups.”

CONTINUE



“You should not worry about that; Ramona’s project, which focuses on honeybees, will divert attention and serve as an alternative that will satisfy the environmentalists.” The group is satisfied; they exchange hearty handshakes and pats on the back.

Ramona, however, despite her best efforts, has been unable to secure the necessary funding due to the limited time available. Disheartened, but still holding on to a glimmer of hope, a few days later she goes to see Jože to try and buy herself a little more time. However, Jože is unwilling and replies:

“You can come with us if you want, but I warned you: my project is ready and we have to leave straight away.”

Ramona is disappointed but doesn’t want to give up; her thoughts are racing through her mind. She doesn’t know what to say; alternatively, she thinks she could set off on her own, and perhaps meet the locals to try and carry on with her project.

RAMONA’S CHOICE

⇒ Ramona goes to Rwanda on her own to verify the facts on the ground. Go to page 24

⇒ Ramona decides to join Jože on the business project in Rwanda. Go to page 22

After making a round of phone calls, Ramona brings together a large group of environmentally conscious companies and a few NGOs for her sustainable project. Everyone has expressed their enthusiasm.

She feels excited as she shows the various representatives into her office. She has prepared coffee, as well as tea and, above all, small soft rolls with honey to offer her guests.

Following her welcome speech, they take turns to speak and introduce themselves; the first to speak is the representative of the company involved in the research and development of natural ecosystems for the protection and restoration of the environment. A brief round of welcoming applause brings the speech to a close, and the second speaker immediately takes the floor.



CONTINUE

Then there is the representative from the Forestry Institute, who proudly explains: “The forest ecology studies we conduct form the basis of our resilience to climate change, as do forest genetic monitoring and sustainable management through international collaborations.” He pauses briefly, as if to emphasise what he is about to say. “In Rwanda, we could focus on protecting chimpanzee habitats,” he concludes, looking around for approval. Everyone smiles and applauds.

The association of ecological beekeepers, through its representative, says: “We aim to promote beekeeping that respects bees and is sustainable, through the distribution of honey plant seedlings, which contribute to forest restoration and the development of bee products. We can train local beekeepers and provide equipment, including hives, to strengthen local communities and support rural livelihoods. ”

CONTINUE



Ramona looks at him, beaming; she almost feels as though she can already hear the gentle buzzing of the bees.

Meanwhile, the representative continues: “We could also create a bee park showcasing various beekeeping technologies, from modern methods to traditional clay hives, capable of preserving the rich beekeeping heritage. Last but not least, we can teach people how to build clay ovens fuelled by small dry twigs and branches, helping to prevent deforestation and the use of charcoal.” He concludes, looking rather pleased with himself.

Ramona hands over to the representative from the Institute for Organic Food Certification: “Ours will be one of the final stages of the project, but it will be an equally important task: that of certifying Rwandan organic honey and coffee. We know that all non-EU products must be certified in accordance with EU organic farming standards, and we are able to provide precisely this necessary certification. Furthermore, I would like to emphasise that the transition to organic coffee cultivation and sales to new Western markets could represent significant new employment opportunities for Rwanda.” A burst of applause accompanies the final passage.



CONTINUE

Adjusting his tie, which he seemed not entirely used to, the representative of a drone manufacturing company stepped forward to explain why his company, too, could make a positive contribution to the project. "We are a company specialising in the safe and precise delivery of parcels, even in areas without landing sites. Our drones use a parachute release system and reduce delivery times. The company can train local drone pilots so that, when the Slovenian experts leave the country, they will be able to carry out their missions independently. Let me give you an example that will amaze you: our drones can help plant trees in inaccessible areas." He concluded with satisfaction, looking around to receive smiles of approval.



CONTINUE



Leaning back in his chair, he loosened his tie. The meeting was almost over. Ramona spoke up: "Thank you all for your contributions and, above all, for your willingness to help. I'm sure it will be a wonderful project. I've decided to call it: Sustainable Beekeeping to Protect the Gishwati-Mukura Region. This project also has another aim: to strengthen the role of women as heads of households, specifically through beekeeping, and our organic beekeeper will be training them. We'll be using native African bees and, if necessary, Slovenian bees as well. Small organic vegetable gardens will be created alongside the hives, and we will also provide suitable organic Slovenian seeds. In the future, organic honey products will be certified by our certification body. Tree planting will also be of great value and benefit to the honey bees."



RAMONA'S CHOICE

⇒ The results she has achieved
lead her to decide to go it alone.
Go to page 24

⇒ Bolstered by her project, she
joins the business delegation. Go
to page 31

Ramona has decided to follow Jože to Rwanda. She feels like a fish out of water, but she still hopes to have a few tricks up her sleeve. On the large terrace of a hotel in Kigali, Ramona sits with a Slovenian trade delegation. Jože hands out geological reports to everyone, confirming the existence of vast reserves of rare earth elements and oil beneath Lake Kivu. Everyone is smiling except Ramona, aware that this is a golden opportunity.

“I don’t think you need me any longer,” Ramona apologises, leaving the meeting. She hurries to the appointment she had arranged just a few days earlier. In a last-ditch attempt to sabotage her boss’s project, she has managed to contact some American and Chinese representatives from oil and rare earth companies. She knows she is playing both sides, but from the companies’ websites it seems they have a particular focus on the environment.

CONTINUE

After presenting her project to them, which she had made more appealing by suggesting a possible exploration to assess the presence of oil and rare earth elements in the vicinity of Gishwati-Mukura, both investors offered to help her make the project as environmentally friendly as possible. Ramona suggests a site visit, not only so that they can carry out feasibility assessments but, above all, because she hopes they will be as enchanted by it as she is.

Feeling both pleased and frightened, she returns to the hotel, where Jože is waiting for her. Ramona tells him about her meeting, hoping that this new situation will work in her favour.

"I didn't expect this step from you. You've taken me by surprise... how do you think my partners will interpret your actions? Don't you think it's effectively an underhand move?" he says angrily.

"All is fair in love and war! You've only got two options now: either give up on the project or..." Ramona replies, her heart pounding uncontrollably.

RAMONA'S CHOICE



She convinces Jože to abandon the rare earth minerals project. Go to page 43



Despite Ramona's actions, Jože decides to press ahead. Go to page 41





Ramona feels full of hope; her mind is already on the meetings that await her. She has just landed at Kigali International Airport, and the customs officers there are checking her luggage. It is the final hurdle before she can finally enter the city.

The customs officer asks her: “Madam, do you have any plastic bags or other banned single-use plastic items with you?”

Ramona, pleasantly surprised, replies: “No, I don’t.”



“Well, thank you very much, madam! Here in Rwanda we have very strict rules on plastic bags and single-use plastic products. Welcome to Rwanda!”

Ramona closes her luggage with a smile and steps out into the blinding, warm light of Kigali.

CONTINUE



Since 2008, Rwanda has banned the production, import, use and sale of polyethylene bags. In 2019, the ban was extended to plastic bags and numerous single-use plastic items, with the aim of reducing pollution and environmental damage caused by plastic waste.

These measures have encouraged research into and the use of alternative packaging materials, such as paper and other more sustainable materials.

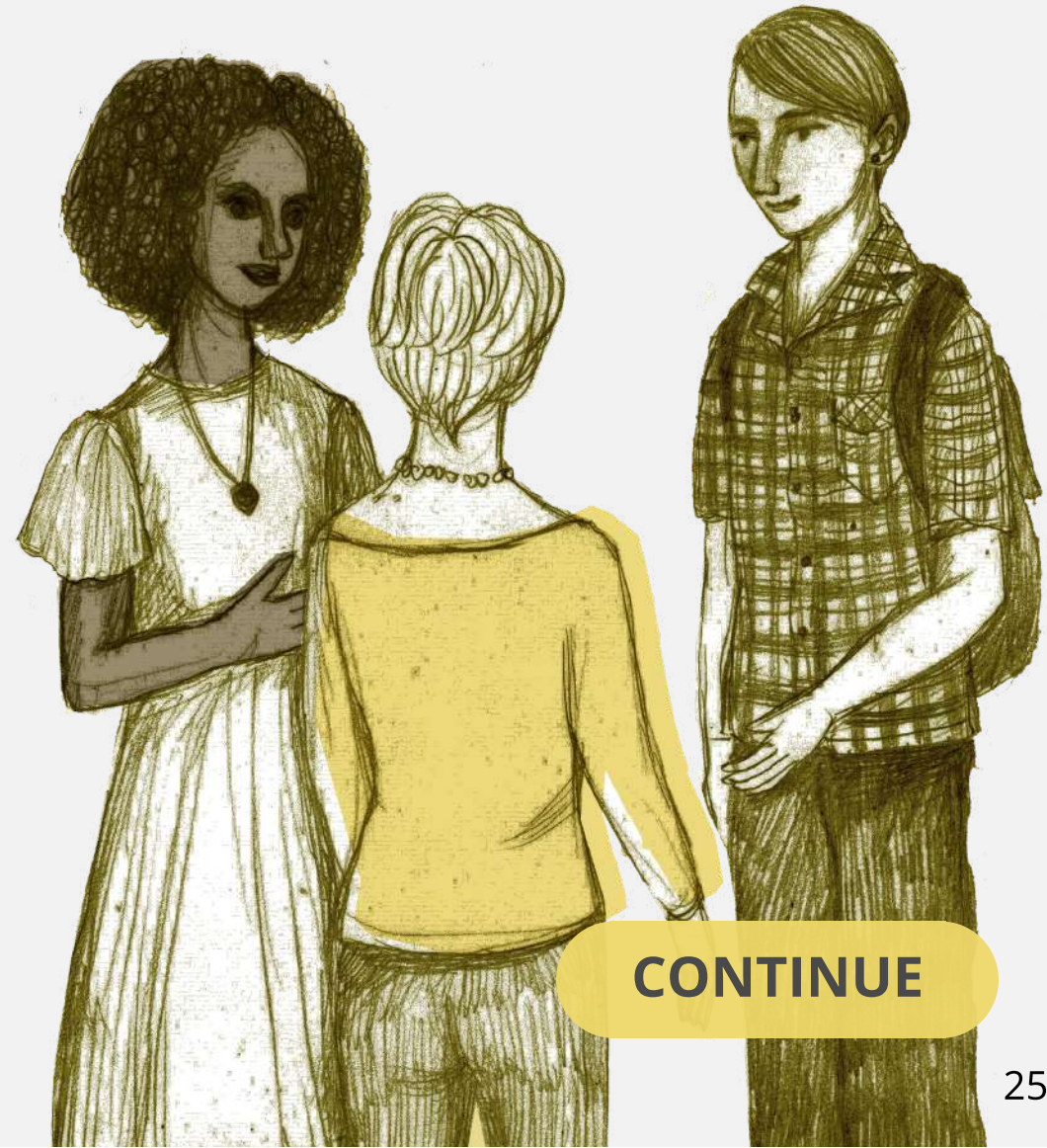
She arrived early in the morning; it is the last Saturday of the month, the day of the umuganda, a special Saturday when the citizens of Kigali come together to look after the city, cleaning the streets and even planting trees.

Waiting for her at the hotel is Mary, a representative of a local partner NGO.

“Welcome, Ramona. If you’re not too tired, I’d like to invite you to the umuganda. We want to plant a tree in the park.”

“I’d be honoured. It seems like a wonderful initiative that should definitely be replicated in my country too!”

Ramona and Mary join the other volunteers, and Ramona soon notices she isn’t the only foreigner taking part in the event. Smiling, she introduces herself to a young Chinese man: “Hi, I’m Ramona from Slovenia.”



CONTINUE

“My name is Ming, I’m from China. I’m here on business, but I didn’t want to miss out on this shared experience. I’m a sales representative for an electric car company; here in Kigali they’re investing heavily in this sector: there are 200 charging stations for electric cars. What’s more, there are zero import duties and numerous tax breaks for importing electric cars. And most of them are Chinese, thanks to the competitive prices.”

Mary chimes in, explaining proudly: “You know, the banks offer good loan and leasing options, so taxi drivers and small transport business owners play a central role in the market. In the near future, electric cars in our country will no longer be just a personal asset, but a work tool, something that generates income whilst being paid off.”



CONTINUE



Rwanda has introduced significant incentives to encourage electric mobility. Imported fully electric vehicles, their batteries and charging equipment are exempt from VAT until 30 June 2028. In recent years, the country has also applied import duty concessions for electric vehicles, measures which are subject to periodic review.

As part of its public transport electrification programme, Rwanda aims to electrify 20 per cent of its bus fleet by 2030, whilst continuing to expand the energy and charging infrastructure required for the transition.

Ramona is increasingly impressed by Kigali; as they make their way through the city, she notes with pleasure that it is very clean. As if reading her mind, Mary says: "We have a very strict waste collection system and scrupulous hygiene standards are enforced to safeguard public health."

Mary guides Ramona through the city, proudly showing her the neighbourhoods and telling her about the projects that will soon make it even more beautiful.

"This is where the Green City Kigali project will be built on Kinyinya Hill, a 600-hectare planned neighbourhood designed to integrate green building, renewable energy and rainwater harvesting, supporting a population of 150,000 people."

They then head towards the park, a truly enchanting place that brings a smile to Ramona's face. "What was once a derelict industrial site is now the thriving Nyandungu Eco-Park, covering 121 hectares and featuring ornamental ponds, medicinal gardens and over 10 kilometres of paved footpaths and cycle paths. The park acts as an 'urban sponge': it absorbs excess rainwater to prevent the flooding that often affects rapidly growing cities. It's also one of the best spots for birdwatching within the city limits," Mary tells her.

CONTINUE



“I’d like to visit the Rwandan Organic Agriculture Movement (ROAM). I’ve brought Slovenian organic vegetable seeds and would like to test them to check their suitability and see if they’re suitable for Rwandan soils.” At the centre, Mary introduces Ramona to some local farmers.

Ramona explains the idea behind her project. “Using these seeds would also allow you to diversify your local organic seed banks. You’ll be able to identify the varieties that thrive in your specific agroecological and climatic zones. By selecting seeds from the healthiest and most productive plants, particularly annuals such as beans, tomatoes and peppers, you ensure that the next generation is better adapted to local conditions.”

CONTINUE

“We’ve already had success with a number of organic farming projects. Our members have developed biofertilisers, used charcoal produced from biomass and started growing mushrooms, amongst other things. I believe that certain Slovenian varieties of vegetable seeds will help us improve our food self-sufficiency and food sovereignty.” A farmer replies as he shakes her hand with his strong, gnarled grip.

Ramona is happy with every meeting and even more so when she discovers that, at the end of that first day, Mary has organised a special evening for her, cooking her “isombe”, a typical local dish, a slow-cooked vegetable stew.

“It’s delicious!” Ramona tells her, tasting the dish whilst telling her about her idea involving bees and how it might be developed, omitting to mention Jože.



CONTINUE

It is dawn; Ramona has packed only the bare essentials. Mary will take her to Gishwati-Mukura to visit the Gishwati Forest National Park. A guide accompanies them, and Ramona follows his suggestions and instructions meticulously. As they walk along a path, he tells her to be quiet and stay still. Ramona catches sight of the silhouette of a golden monkey and, further ahead in the distance, a small group of chimpanzees. "They're one of the forest's tourist attractions," the guide whispers to her. As the small family disappears into the thick of the forest, Ramona's heart is in turmoil; nature is so powerful and marvellous that she feels almost overwhelmed. "It's such a marvellous place that it should simply be protected," she says to herself. Yet she knows that Jože's project, for which she is being paid, involves the extraction of rare earths.

RAMONA'S CHOICE

⇒ Ramona decides to persuade the local population to accept rare- earth mining and to be compensated through beekeeping. Go to page 34

⇒ Ramona supports forest conservation and the identification of other areas for resource extraction. Go to page 37

Ramona lands in Kigali alongside a group of representatives from Slovenian companies. She feels excited but also extremely nervous, as she has realised that Jože has very different ambitions to her own. In the taxi, she goes over all the points of her project, confident in the many stakeholders involved. The meeting is attended by the official representative of the mineral resources agency and other government bodies. Ramona listens carefully to every detail; the discussion seems to be going well, as the government and the companies also want to invest money and technology to extract these resources.



Everyone exchanges broad, approving smiles, but the more time passes, the more Ramona feels suffocated. On the surface, it might seem like a win-win situation for everyone; however, Ramona has always been a fervent advocate of sustainability, climate change mitigation and the phasing out of fossil fuels.

CONTINUE

Ramona stops listening; her thoughts are making too much noise: "The world seems to be heading in the wrong direction again, and I'm letting all this happen." She says to herself, whilst at the same time trying to convince herself otherwise: "Perhaps the locals will get some jobs, and perhaps that's worth the price of destroying nature..."

She feels like crying, even screaming; she feels as though her head is splitting in two. ...the buzz of voices in the background makes her think of her project: "I must meet the local beekeepers, talk things through with them... it seems absurd to be here talking about this project involving oil extraction."

Ramona speaks to herself as she leafs through the documents in front of her, the result of her research carried out without Jože's knowledge.



CONTINUE



"...extracting oil from Lake Kivu could provide a significant energy boost, but exploration risks triggering a catastrophic release of the 60 billion cubic metres of dissolved methane and CO₂ trapped in its depths. The lake supports local livelihoods through fishing and agriculture. A chemical spill or explosion would destroy the local ecosystem, affecting biodiversity and the fishing industry."

Those words hit her hard; a tear rolls down her face, falling onto the page.

Once again, Ramona feels she is faced with a dilemma and that she must do something.

RAMONA'S CHOICE

⇒ Decides to support forest conservation and the identification of other areas for resource extraction. Go to page 37

⇒ Decides to persuade the local population to accept rare-earth mining and to be compensated through beekeeping. Go to page 34



The Lake Kivu basin has shown promising characteristics for oil exploration. Geophysical surveys, including 2D seismic surveys, have made it possible to reconstruct the structure of the basin and identify areas of interest for further exploration. Geochemical analyses have also provided useful insights into the area's oil potential.



At last, Ramona is able to meet the local beekeepers, perhaps the only reason she decided to come to Rwanda. When she arrives in the village, she spots Mrs Kayitesi in the shade of an avocado tree, in a local community, who carefully shows her one of her old beehives made from tree bark.

“For years we’ve kept bees like this,” she explains. “But to make these hives we had to cut down large trees, stripping the bark or using the trunks. This gradually destroyed our forests, thereby contributing to climate change. Yet the honey I harvested was scarce.”

CONTINUE

Ramona places a hand on her shoulder as if to reassure her and, smiling, says: “Unlike your bark hives, our modern hives are durable, environmentally friendly and produce superior-quality honey. You’ll be able to harvest more honey, sell it and even keep some for your family.”

Surprised and incredulous, Kayitesi asks her: “Do you mean it won’t just be a matter of survival anymore, but also an economic activity?”

Ramona smiles: “If you do it properly, it will become your business. You’ll be able to produce honey, beeswax, propolis and so on.”

Within a few weeks, Ramona’s entire team arrived in Rwanda to launch the project: the Slovenian organic beekeeper trains the trainees in modern beekeeping techniques to help them improve their yields, and assists local farmers in harnessing the potential of bee products, such as beeswax and propolis, as well as in secondary processing, such as making candles or honey-based sweets.



CONTINUE

Meanwhile, a representative from another company is constructing a wetland to effectively remove pollutants from the water through microbial activity and plant absorption. In collaboration with a forestry expert, the representative from the drone company uses AI-guided drones to combat deforestation, firing biodegradable capsules filled with nutrients and tree seeds onto inaccessible terrain, including steep slopes.

The project begins to show its first results after a few months, attracting the interest of representatives from commercial firms, who, intrigued, come to see the work in progress.

Ramona is satisfied, but Jože does not seem willing to back down: the Slovenian government still wants to finalise the rare earths deal.

RAMONA'S CHOICE



Ramona's project is successful, so the rare-earth project is scaled back with numerous environmental protection measures. Go to page 47



Jože and his business approach have been effective in lobbying, and they obtain the mining permit. Go to page 41

To show her what the impact might be, Mary takes Ramona to a mining site. The whole place is shrouded in a thick, suffocating grey cloud.

"The dust from these machines isn't just dirt, it's poison," says Mary, her voice choked with dust and anger, as she pulls Ramona into the shade of a large tree. Before them, the relentless steel jaws of an excavator are gnawing at the red earth.

"They say they bring progress," murmurs Mary, watching the lorries laden with grey ore, "they say the world needs these stones for mobile phones and cars, but if the world gets batteries, and people end up with dried-up rivers and diseased fields, where is the progress? This ore they call "rare" is actually the heart of someone else's forest. If they tear it away, there will be nothing left here to feed the children."



CONTINUE

“I’ve seen enough... There’s nothing we can do; it’s just the two of us, and they’ve got money and armed guards,” says Ramona resignedly.

On the journey back to Kigali, after the first few minutes of silence, Ramona, who had been sitting with her head bowed, jumps up and cries out, startling her friend.

“We mustn’t!” she says, clutching her friend’s hands. “We mustn’t, we can’t give up! We’ll write, I’ll write from Slovenia to take action and give a voice to those who aren’t being heard; we’ll take legal action against the mining of rare earths. At present, Rwanda has no active commercial oil extraction operations and is 100 per cent dependent on imported petroleum products; this makes its economy vulnerable to rising global fuel costs and supply chain shocks. Everything is still at the exploration stage and partners are still being sought for potential production...”

Like a river in flood, Ramona sweeps Mary away with her idea.

CONTINUE

After a brief silence, Ramona continues: “We can approach the American and Chinese representatives. I think they have a slightly more sustainable approach, even though I still have some doubts, but perhaps they also feel guilty, and that’s why we might find it easier to secure funding... What do you think?”



Overwhelmed by Ramona’s enthusiasm, Mary smiles, managing only to nod her head. A few days later, sitting opposite the two representatives, John and Wang, they listen to their responses. “Ramona, even though your country isn’t investing enough money in your humanitarian development project,” John begins with his perfect smile, “our company has decided to invest \$100,000 in your excellent project.”

“Yes, I agree!” interjects Wang, as if not wanting to be left behind, “our company also intends to contribute a further \$100,000 to your project. We may be competitors, but I believe it is better to be partners in preserving the environment as much as possible. True development must never come at the expense of the environment, even when we are all searching for new sources of rare earths and oil due to their scarcity on the market.”



CONTINUE

Mary, keeping her enthusiasm in check, explain: “The Gishwati and Mukura forests are fragmented and separated by about 50 km. We can reforest the entire area, transforming it into a single, continuous forest as large as the Nyungwe Forest, a UNESCO World Heritage Site. Who knows, perhaps one day we will be able to connect the Gishwati-Mukura forests to the Nyungwe Forest via a rainforest corridor. And around the forests we can create small sustainable villages with organic beekeeping, tea, coffee, vegetable plots and gardens to ensure food security and sovereignty.” she adds, her eyes sparkling, as if they can already see what is to come.

RAMONA'S CHOICE



She makes a compromise: organic beekeeping will mitigate the extraction of rare earths. Go to page 47



Jože's rare earth mining takes precedence over Ramona's dream of environmental protection. Go to page 41



With her new allies, Ramona convinces Jože to abandon the rare earth project. Go to page 43

Early in the morning, Ramona wakes to the sound of birdsong. The beauty of the park is overwhelming. She remembers her walk along the path leading to the magnificent waterfall. And she remembers all the smiles of the local people. Though they are poor, they are happy. They are content with the little they have. They live in harmony with nature.

Some residents have started getting involved in eco-tourism; new opportunities may well open up for them.

Ramona switches on her mobile phone; the screen highlights the news that an agreement has been signed to explore rare-earth deposits near the reserve. “All is lost,” she says to herself.

Slovenia needs access to those strategic resources, whilst Rwanda needs the money that the project can provide. The international crisis has turned the energy transition into a matter of national security, as well as economic development. Relying on a single source of supply can prove disastrous; however, as the world seeks to reduce its use of oil and gas, the competition to secure the rare earths essential to green technologies has become more intense and aggressive.

CONTINUE



Ramona sighs, "Once again, the people's voice counts for less than the decisions of those in power. I can only hope that all this doesn't lead to further conflict."

For the last time before setting off again, Ramona says goodbye and hugs her new friend Mary.

After weeks of work, meetings and awareness-raising activities, she is forced to accept defeat.

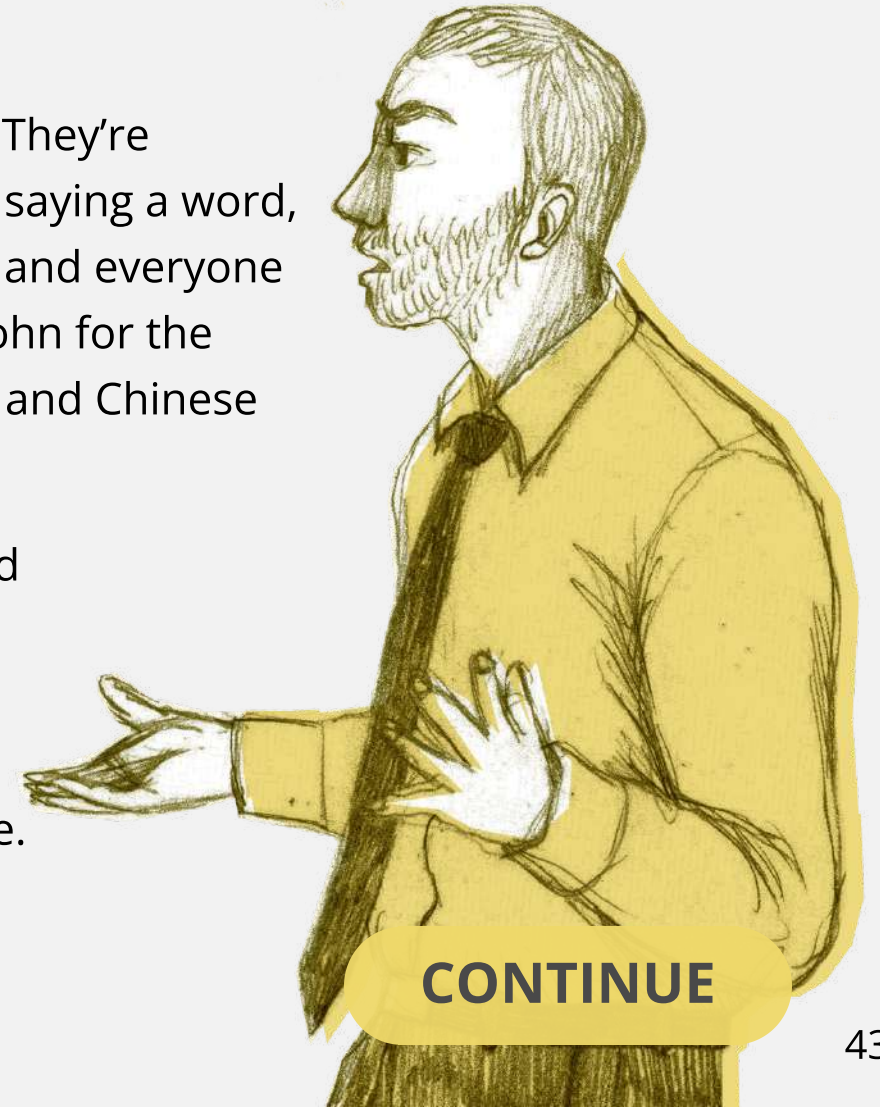
From the aeroplane's window, whilst sipping a cup of Rwandan coffee, she looks down at the landscape below, wondering how much of that extraordinary beauty will manage to survive.

THE END

Jože is furious. He starts walking up and down the room, in silence. Ramona watches him. Suddenly, Jože says to her, "How do you plan to proceed? I suppose it's up to you."

"I'd like you to meet the Chinese and American representatives. They're waiting for my call." Jože makes a gesture with his hand without saying a word, but one that gives her permission to call. Barely an hour passes and everyone is seated at the same table. Ramona makes the introductions: John for the United States and Wang for China. The offer from the American and Chinese companies is explained to Jože.

"We'll carry out a full analysis of the areas to work out where and how best to carry out our work; however, if we find that the impact on the forest and the biome would be too great and devastating, we don't think we'll go ahead," said John in a calm voice. Jože shifted uneasily in his chair, but remained inscrutable.



CONTINUE

“But first, we’d like you to see these places, their beauty, and to realise for yourself just how vital places like this are for all of us,” says Ramona.

The guide who had previously accompanied Mary and Ramona shows him the perfection of nature, the variety of plants, trees and animals that inhabit the forest. A little further on, another guide is leading a group of families on a tour; the children are completely captivated. A woman holds a little girl in her arms, who is laughing happily. “They could be your children...” says Ramona, looking at Jože.

He looks at her almost without seeing her, as if he’d only just woken up, unprepared to face such beauty, yet also surprised to see everything from a different perspective. He replies, “You’re right, it’s a marvellous place,” pausing, overcome with emotion, “seeing those children made me think of my own children, of what I’m leaving them, of their future... and perhaps, however hard it is for me to admit it, I think we need to take a different path!”

“Sometimes it takes courage to change your mind. What you wanted to do would have further contributed to destroying the environment and made climate change even more of a burden on everyone’s lives,” Mary tells him gently.

CONTINUE

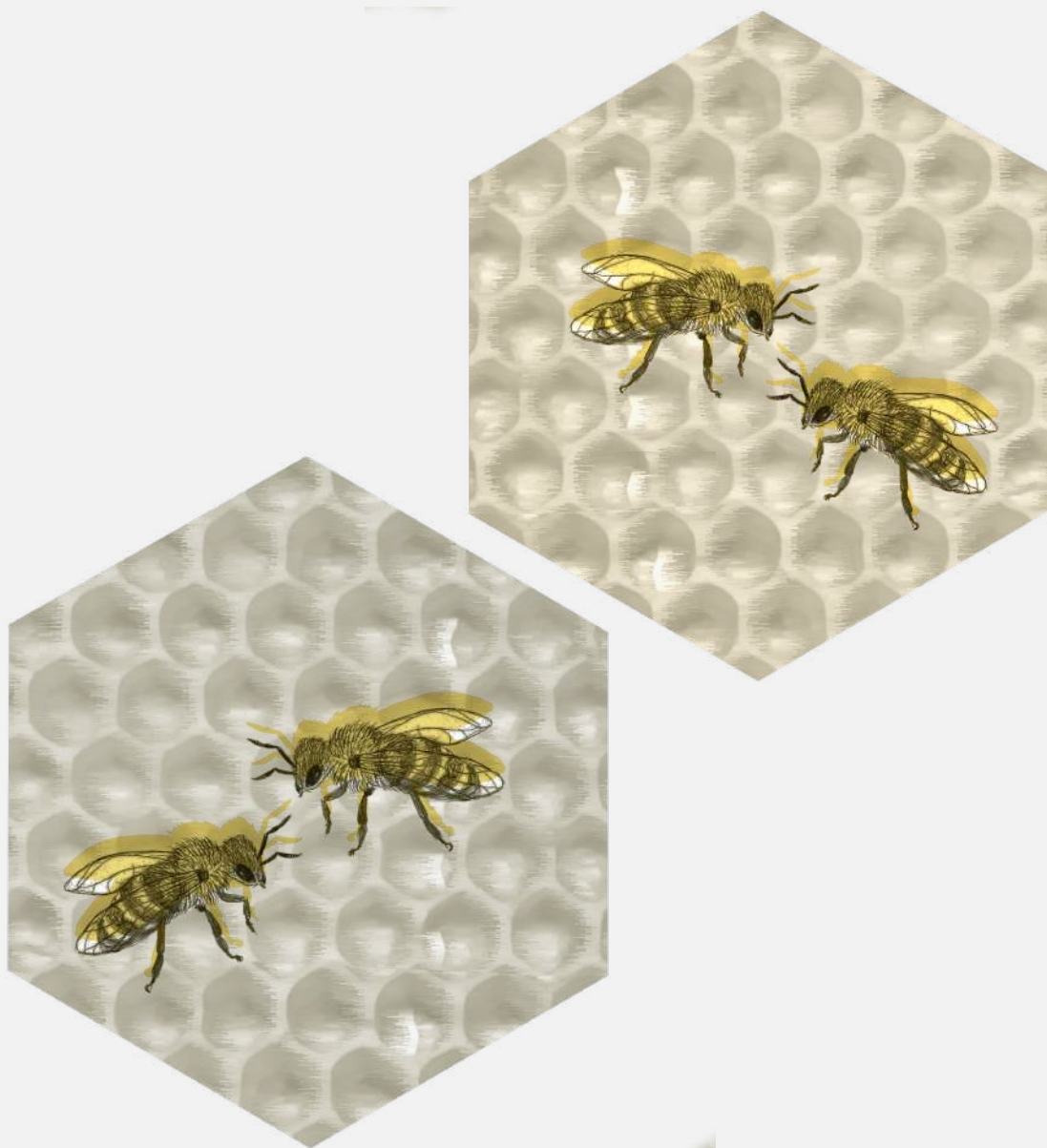


"Mary is right," says Wang, gazing into the canopy of trees, "we often make choices without giving them much thought, because the consequences fall on others... without realising that those 'others' are actually ourselves."

"Once the studies are complete, we'll assess the impact," says John, "but we'd like to tell you right now that we'll both be providing substantial funding for the bee project, so that you can save and strengthen the natural environment."

Mary and Ramona are delighted, especially Ramona, who is confident that the project will also satisfy the NGOs she works with, and will likely be regarded as an excellent initiative in the field of international cooperation.

CONTINUE



A few months later, the first results of the project arrived, reported with great enthusiasm by the Slovenian beekeepers' association: the Carniolan bees have adapted perfectly here in Rwanda and will help produce more honey.

Strolling through the city's organic markets, Ramona proudly spots the first packs bearing the brand they devised: "BE BEE FUTURE".

THE END

A few days after their arrival in Kigali, Ramona, Jože and the business delegation were inundated with a series of emails and phone calls from both sides of the Slovenian political spectrum: significant pressure was being exerted to influence their decisions. For Ramona, striking a balance that would satisfy everyone had been incredibly difficult; right up until the end, she had hoped to succeed in getting her proposal accepted over the others.

Seated at yet another decision-making meeting, after hours of gruelling discussions, Ramona and Jože reached a compromise to launch a rare-earth mining project, albeit on a smaller scale.



“It will not just be a Rwandan-Slovenian project, but an international consortium,” explains Ramona, addressing the partners and new members John and Wang, “so the mining will take place in an area further away from the protected zones; and I can already reveal that our Chinese-American partners are willing to fund the beekeeping project with 200,000 dollars. This will enable our country to increase its ODA.”

CONTINUE

Ramona feels confused, sad and yet relieved; given how things had turned out, she'd feared it would all come to nothing.

In her hotel room, before setting off again, she treats herself to a cup of coffee and the inevitable honey. She realises she has achieved a great deal, even though she was unable to stop the rare-earth mining project; yet despite this, she remains hopeful: launching the bee project opens up new prospects for everyone.

These extraordinary insects still have so much to teach us: cooperation and, above all, respect. Ramona believes in people and their ability to change, and hopes that one day we can do more and do it better.



THE END

REFLECTION QUESTIONS

1

2

3

4

Next



Having learnt about Ramona's story, is there anything you could do in your community to help protect biodiversity or contribute to a more sustainable future?



Do you think it's possible to strike a balance between economic development and environmental protection?

Are there any aspects that, in your view, should never be sacrificed?



**Which ending did you choose, and
what influenced your decision?**



Who should have a say in decisions concerning the use of a region's natural resources? Why?

FURTHER RESOURCES

Next



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