

Civilization 256

Chapter 256 Prelude

Xiulote gazed skyward, where eagles soared, envisioning a distant future rich with possibilities. To turn those visions into reality required concrete and effective planning, as well as steadfast progress.

With this in mind, he waved his hand to summon Esko, and once again inquired about the production of saltpeter from Heavenly Fire Island, which was essentially the production capacity for gunpowder.

The Alliance was flanked by continuous volcanic ranges to the east and the west, among which lay many natural sulfur mines. The most active among these was the Popocatepetl volcano, located in the eastern range, bordering the people of Tlaxcala, and abundant in sulfur and obsidian. Thanks to the mountain folk's harvesting efforts, the Alliance was not short of sulfur.

Not long ago, Xiulote personally designed charcoal clamp kilns. According to the head charcoal burner, Koskachi, charcoal production rates had reached thirty-five percent following the completion of the first batch of clamp kilns and were expected to soon hit forty percent.

Hence, for the Mexica Alliance, the only constraint on mass-producing gunpowder was saltpeter.

Xiulote, looking at the increasingly respectful Esko, asked in a grave tone.

"Esko, how is the accumulation of saltpeter progressing now?"

Esko smiled in reply, full of confidence in this matter.

"Your Highness, I have now mobilized hundreds of salt workers and over a thousand laborers, collecting saltpeter in heaps every day. Our current daily saltpeter consumption barely exceeds two to three thousand catties. At this rate, it will suffice for several months, or even until the end of the year."

Xiulote pondered for a moment, then slightly shook his head.

"Esko, you still need to hasten the collection! Come March, the gathering of saltpeter will become difficult, with a significant drop in content. And once it starts to rain, the alkali lands will be unreliable. Remember to dispatch people to explore the caves in the forests, looking for places where bats congregate. There should be a large quantity of saltpeter there too!"

Esko bowed to take his leave. Xiulote recalculated in his mind and shook his head with a sigh.

The current production of saltpeter on the island was merely over a hundred catties per day, amounting to just over three thousand catties per month. When converted into standard gunpowder, this equated to a monthly output of four thousand catties, or tens of thousands of catties annually. Ten fire arrows required at least one catty of gunpowder, a single Clay Tribulus needed three to four catties, and a wooden cannon required nearly ten catties. The Alliance's three months of gunpowder production could only manufacture thirty thousand fire arrows, muster eight hundred Clay Tribulus, or fire three to five hundred wooden cannons.

This number, seemingly large, was only enough for the consumption of one large-scale battle. If it were a siege, the consumption of gunpowder would double. This figure did not even take into account loss, misplacement, and accidental discharges. Usually, non-combat losses of gunpowder also exceeded twenty to thirty percent.

Xiulote recalled history and reality. In this era of the rise of gunpowder weapons, the highest production of gunpowder should belong to the Ming Dynasty, annually producing at least several million catties, followed by the Ottoman, also on the scale of a million catties yearly. For emerging Spain, the annual gunpowder production was around several hundred thousand catties, with capacity rapidly increasing.

Six gunpowder workshops had been established in the Capital City of the Ming Dynasty, especially the renowned Wanggong Factory, which left an unsolved mystery for later generations. "Every five days, the three main camps of the Capital City together take over three thousand catties of gunpowder." Wanggong Factory's daily gunpowder production was at least six hundred catties or more, with thirty to fifty craftsmen and dozens of laborers, clearly far surpassing the production efficiency of the Alliance.

The Ottoman Empire was also building a large number of gunpowder workshops to meet the vast consumption of war. As early as the 1453 siege of Constantinople, in a little more than a month, the besiegers' ordinary cannons consumed 50-60 thousand catties of gunpowder and fired around 5,000 cannonballs. The fearsome Great Bombard required several hundred catties of gunpowder per shot, capable of hurling 500-kilogram projectiles up to 1 mile away, with loading times stretching to several hours and requiring dozens of men to load.

A year later, in 1484, King Fernando of Spain established royal arsenals in Seville and Cordova. Later, during the 1487 siege of Malaga City, dozens of cannons were used continuously bombarding the fortress for months. Soon, Spain would become the country producing the most gunpowder in Lord's Europe, and with the perfection of the "Great Schiltron," it would also have the most musketeers.

"Esko, the current daily saltpeter production is only over a hundred catties, which is far too low! I will allocate another group of salt workers to you, and in a month, we need to achieve a daily production of over two hundred catties!"

Xiulote gave his stern order, demanding a doubling of production.

Esko's expression turned bitter. He lowered his head, pondered for a moment, then still replied candidly.

"Your Highness, the production of saltpeter requires not just experienced salt workers! Collecting saltpeter soil requires thousands of laborers, boiling saltpeter requires a large amount of wood and straw, and manpower is also needed to collect and chop this. Additionally, someone must gather plant ash from the Capital City... To double the production, at least several hundred to a thousand more laborers would need to be levied, along with sufficient tools and food."

Hearing this, Xiulote thought for a moment and then nodded in agreement.

"I will allocate more laborers for you. Let the saltpeter salt workers learn from each other, exchanging experiences; there is still much room for improvement. Also, encourage exploration! If methods are found to increase capacity, first grant a reward, then spread the knowledge!"

Esko prostrated to accept the order. Enduring the pain of his wounds, he clenched his teeth in determination. Far away, the chief salt worker Moreno shuddered violently, looking utterly bewildered.

To maintain just this one saltpeter and gunpowder workshop already occupied the manpower of two to three thousand people and stationed over a hundred samurais, drastically reducing the output of the great salt fields while requiring a continuous supply of food. The development and application of military technology would continuously drain national strength, and it was not an issue that could be impulsively solved by one person.