

Promoting Forest City Management Based On Islamic Approach

Mikhriani

Sunan Kalijaga State Islamic University, Yogyakarta, Indonesia
Correspondence Email: *mikbriani@aol.com*

Luthfi Maulana

Pekalongan Sate Islamic Institute, Jawa Tengah, Indonesia

Imam Nawawi

Sunan Kalijaga State Islamic University, Yogyakarta, Indonesia

Abstract

There are many Koranic verses revealed the structure of city space, including forest city itself. These verses confirmed the ancient history records that human being creates the great civilization. One of their prestigious creations is a modern management concept of structuring the forest city. It shows how to build a green space, an unpolluted air and water, and a healthy environment. This paper studied the Islamic approach to forest city management in light a concept of Maqasid al-Syariah of Abu Ishaq Asy-Syatibi. Maqasid al-Syariah are Islamic pillars whose goal that is keeping sustainability, the existence and continuity of human life. It means that Islam has serious concern over good environment and its impact on health and wellbeing. According to Islam, the destructive behaviors cause damage just toward a single part of the environment are as bad as those destruct all of it. Therefore, managing forest city as well as Koranic directions depicted within its verses is a duty of Muslim people and for both secular or Islamic government.

Keywords: *Forest City, Management, Maqasid al-Syariah*

INTRODUCTION

Our earth and life space are denser than before. It has been caused by increasing human population. Roeland Samson (2017) studied the growth of human population and its impact on the constriction of life space. Based on the study, human population reached 1 billion inhabitants at 1804 and became 2 billion just at 1927. It was more amazing when the rate got 6 billion at 1999 and 7 billion in twelve years later at 2011 (Samson, 2017: 3).

Worldometers site says that according to the most recent United Nations estimation, the current world population was 7.7 billion as of November 2018 (World Population, 2018).

Samson also saw the population density impacts on the construction of urban space as the locus of human activities concerning for building its civilization such as transportation, energy supply, clean water and sanitation, technological innovation, and its vital culture. Urban civilization forms its unique ecosystem differs from its origin (Samson, 2017: 4).

The emergence of urban space shadowed by its negative advantages causes the damages of environmental ecosystem. Jelle A. Hiemstra (2017) critically considered the rising temperature, global warming, polluted air and water as real impacts of urban problems. Therefore, the ecological damages and the environmental degradations threaten human health and activities. An alternative solution may be used to prevent those worsts is the raising urban forest. So that, maintaining urban trees is crucial action. Hiemstra called it as a green infrastructure (Jelle A. Hiemstra, 2017: 7).

The green infrastructure concept is also a part of Muslims necessity based on their Islamic belief. Islam as basic values of muslim people makes the great remarks about the concept. Preserving environment in general and maintaining green city in particular are fundamental Islamic teachings. “Will ye be left secure, in (the enjoyment of) all that ye have here, gardens and springs, and corn-fields and date-palms with spathes near breaking (with the weight of fruit)?, and ye carve houses out of (rocky) mountains with great skill, but fear Allah and obey me, and follow not the bidding of those who are extravagant, who make mischief in the land, and mend not (their ways),” (Asy-Syu’araa’, 26 : 146-152).

These Koranic verses according to interpretation of Muhammad Ibn Jarir at-Thabari concern with prophet Shaleh *peace be upon him* and his people of Tsamud (Ath-Thabari, 1994, 524). They are an ancient civilization located in the Hejaz and north of the peninsula. Numerous Thamudic rock writings and pictures have been found on Mount Athlab, near Mada’in Shaleh (The Editors of Encyclopedia Britanica, 2018).

Tsamud represents the urban inhabitants. A historian and scholar, Ibnu Khaldun, mentioned Tsamud tribe in his *Muqaddimah*. He wrote, “... They also founded cities and towns (there) and promoted the development of sedentary culture and luxury to the highest degree... There are a long period of royal authority and sedentary culture. The coloring of

(sedentary culture) established itself firmly. The crafts became abundant and firmly rooted... Such crafts are embroidered fabrics, striped cloth, and finely woven garment and silks.” (Ibnu Khaldun, 2018).

Koranic verses mention the green infrastructure of Tsamud’s city was destroyed by own God’s hand when they did not obey to the prophet’s calling and followed those who were extravagant and made mischief in the land, and mended not their ways. Ath-Thabari As well as Abu Laits as-Samarqandi mentioned them whom Allah labels as extravagant. They were nine extravagant of Tsamud tribe (Ibrahim As-Samarqandi, *Babr al-Ulum*, 1993: 480).

Destructive deeds of nine Tsamud extravagants towards the green urban life were the targets of prophet’s preachings in order to stop them and to maintain the green environment had been runing. Therefore, perpetuating urban forest is a subtopic of Islamic law. Abu Ishak Asy-Syathibi has promoted the concept of *Maqasid al-Syari’a* that are objectives of Islamic law. Based on the concept, making forest city in certain urban areas is a must for Muslims and an Islamic order (Asy-Syathibi, 1997: 17).

Within Asy-Syathibis’ concept, it should say that the existence of forest city is a Dharuriyya; a term means everything very urgent and most significant. Dharuriyya means that fulfill not its rules results damages and threatens human life (Asy-Syathibi, 1997: 18). The absence of forest city in a certain area is a threat to urban life, while one of the fundamental islamic objectives is to sustain the human sustainability. So that, managing urban forest, according to Islamic objectives (*maqashid al-Syari’a*), is a Dharuriyya.

Before discussing a Koranic approach on forest city management, firstly it should appreciate E. Gregory McPherson definition. Urban forests (or forest city) are small pockets of green in a gray landscape. They are ribbons of life meandering through a largely artificial environment. They are enclaves of serenity and biological diversity tucked within suburban development and busy streets. The worldwide trend toward urbanization threatens the 'green infrastructure' of our cities, making the need to understand these ecosystems increasingly important (E. Gregory McPherson dkk, 1997, 49). The key of McPherson definition is about a green infrastructure built in a gray landscape of urban life.

Agustina Emmi Kurniastuti (2013) defined the forest city as a pocket of trees in specific areas of the city. These trees give much benefit either for the environment or the

people. But, the existence of forest city needs legality. It has to agree with the government regulation of the Republic of Indonesia Number 63 of 2002 concerning Forestry (Kurniastuti, 2013: 442).

Agustina also mentioned the uses of forest city. Ecologically it fixes a climate change, prevents an erosion, protects a land water, eradicates an air pollution, absorbs a CO², products an O², combats a carbon emission, and conservation of flora and fauna habitat. Socio-psychologically it becomes a recreation destination and gives good impacts on citizen's both mental and physical health (Kurniastuti, 2013: 443). Liisa Tyrvaainen and Antti Miettinen saw the economic uses of forest city that are to minimize the budgeting of handling pollution and to raise the selling price of lands around the forest (Ainen, Miettinen, 2000: 205).

The more philosophic apprehension on the forest city definition comes from J.F. Dwyer, who concerned the function of the urban forest. He wrote that the urban forestry plans should begin with a consideration of the trees and forests' contribution can make to people's needs. Planning and management efforts should focus on how the forest can best meet those needs (John F. Dwyer (ed), 1992: 227). The bold is from the writer.

The Dwyer's stressing on people's consideration and needs means that those have choices within interpreting the meanings and the functions of urban trees and forest. Their considerations are the fundamental basics of managing the forest city. The different considerations will bear the different types of management. The Muslim community in general and urban Muslims in particular have own understanding about their trees, water, land, air and environment. So that, the cultural landscape of the Muslim community must be considered as a basic value of managing forest city establishment in a certain urban area.

It has here to be said that study of forest city does not only relate to natural science but also to a social one. Within this context, forest city is also called as cultural landscapes. Arntzen (2002) defined it as the result of an encounter between nature and culture, as some forms of integration between the human and cultural with the natural, the land. Different types of experts take differing views of what a cultural landscape encompasses. Cultural and local historians, for example, focus on the visible aspect of a community's historical development, while cultural geographers look at aspects such as results of land use and tenure. In cultural landscapes, human contributions to the land can be constructive and

consistent with nature's own conditions and processes, but this is not necessarily the case (Cecil C. Konijnendijk, 2018: 11).

Secondly, it should appreciate Agustina definition who saw the forest city management as a series of activities combine between sciences and arts, between technology and human resources, in managing trees and forest resources of a certain city. The goal of this management is to function the forest city as well as possible and to give uses of it for urban people. The plan consists of planning itself, budgeting, socializing the forest city environment, knowing the forest city needs, including about kinds of trees, planting techniques, implementations and documentations. The organizing consists of mobilizing citizen's supports, managing human resources, staffing, coordinating and cooperating with stakeholders (Emmi Kurniastuti, 443).

RESULTS AND DISCUSSION

Koranic Concept of Forest City

For Muslims, the trees, forest, water and fruits are very sacred. They are the concrete God's blessings. "it is He Who has spread out the earth for (His) creatures, therein is fruit and date-palms, producing spathes (enclosing dates), also corn, with (its) leaves and stalk for fodder, and sweet-smelling plants. Then which of the favours of your Lord will ye deny?" (ar-Rahmaan, 55 : 10-14)

In another verse, Koran said: "and among His Signs in this; thou seest the earth barren and desolate; but when We send down rain to it, it is stirred to life and yields increase. Truly, He Who gives life to the (dead) earth can surely give life to (men) who are dead. For He has power over all things." (Fussilat, 41 : 39).

Trees, water and land are signs of God's majesties. Al-Husain Ibn Mas'ud al-Baghawi in *Ma'alim al-Tanzil* said that one of God's majesty signs of is making green the dried earth with plants. To show His power, God sends the rain to make green dead earth (Al-Baghawafi, 1412: 175). Within the asy-Syathibi's concept of maqashid al-syari'a, the making green is an urgent necessity (Arabic: *dharuriya*). Based on the text, the belief of Islam guides how to undergo the life either in this world or in the hereafter. Preserving trees and making green city are Koranic directions. They are urban Muslims necessities Islam has concerned.

The Syathibi's concept of *dharuriyah* or urgent needs could be analyses of how something impacts on the good for both here and hereafter life, and on the damage, decease and death. According to asy-Syathibi's, everything does not impact on those is only categorized as the wishes (Arabic: *hajiyat*) (Asy-Syathibi: 21). Therefore, the existence of forest city in particular and the green infrastructure in general are urgent needs, especially for urban people with polluted environment. Urban trees are urban Muslims neediest.

Koranic verse also describes the reason why cities have no forest city deceased. "Do they not travel through the earth, and see what was the end of those before them? They were superior to them in strength: they tilled the soil and populated it in greater numbers than these have done: there came to them their apostles with Clear (Signs). (Which the rejected, to their own destruction): it was not Allah who Wronged them, but they wronged their own souls," (Ar-Ruum, 30 : 9).

Imam at-Thabari, a Koranic interpreter and professional historian, said that the verse of Ar-Rum talks about Quraish tribe. God orders Muhammad' people to observe, to research, and to investigate the histories of nations and states before them. Muhammad's people at the times enabled to do because of their professions as international traders. The rutes as long as they passed were rutes of nations God means within Koranic verses. Ath-Thabari added that those nations were bigger than Quraish. It was proved by their capabilities of mining the minerals (*istakbraju al-ardh*), developing the agrarian affairs (*haratsu al-ardh*), and building the skyscrapers (*amaru al-ardh*), but the impressive advantages were useless under God's punishments. The big civilization was destroyed (Ath-Thabari, 1997: 93-94).

The ending of the ar-Rum verse (9) said that "... it was not Allah who Wronged them, but they wronged their own souls." A certain city without the forest city is natural killer, and it is something relates to human policies not a god's choice (Q. Li, K. (ed), 2008: 117-127).

Academic researches and studies well done by the professionals are the sufficient reasons of promoting the forest city urgency. The Islamic approach promoted by as-Syathibi accords these scientific urges. For Islamic teachings, the existence of forest city in a certain city is an emergency (*dharuriyat*), besides its functions is to prevent the environmental damage and the climate change (Antje Ahrendsa, (ed.), 2010: 14557).

Koranic Management of Forest City

Koranic verses spread on all its pages also detail the principles of forest city management. Firstly, Koran talks about the urgency of mobilizing the citizen's support. "And when it is said to them, 'do not cause corruption on the earth,' they say, 'we are but reformers,'" (al-Baqarah, 2 : 11). There is not a sufficient evidence that everyone wants to build a green infrastructure. There are potential contradictive perceptions about how the manners of preserving urban trees. Therefore, Koran talks about uniting citizen's visions and prohibiting the destructive ones. "... and if it were not for Allah checking (some) people by means of others, the earth would have been corrupted, but Allah is full of bounty to the worlds," (al-Baqarah, 2 : 251).

The study of Alfredo B. Lorenzo (2000) is most interesting. It made great remarks on the commitment of people Mandeville city, a suburb of New Orleans, Louisiana, United States. Up 80% of them agreed to pay up twelve dollars (>\$12) every year for preserving their forest city (Alfredo B. Lorenzo, Catalino A. Blanche, Yadong Qi, and Malcolm M. Guidry, 2000: 319). Commitments of Mandevill people for their future were manifested in their compassions and concerns on trees and urban forest (David Pearlmutter, dkk. (ed.), 23).

Secondly, Koranic verse talks about social piety as a basic value. The establishment of forest city must be based on the belief and piety, not on secular and pragmatic goals only. "(Yea, the same that) has made for you the earth (like a carpet) spread out, and has made for you roads (and channels) therein, in order that ye may find guidance (on the way); That sends down (from time to time) rain from the sky in due measure; and We raise to life therewith a land that is dead; even so will ye be raised (from the dead)," (Az-Zukhruf, 43 : 10-11).

Forest City of Langsa is one of Islamic destinations in Banda Aceh. The tourists should wear Islamic dress codes. The offenders will be prosecuted in accordance with Aceh Qanun Number 6 of 2014 concerning Jinayat Law.¹ It is in accordance with the basic values of Langsa City that are the realization of a safe, peaceful, dignified, advanced, prosperous and Islamic society (<https://www.langsakota.go.id>, 2018). Usman Abdullah as an authoritative

¹ Thayeb Loh Angen (ed.), "Ada Apa di Hutan Kota Langsa?," in <http://portalsatu.com> accessed 9 November 18.

ruler of Langsa said that he himself supports the tourists not to violate Islamic law (Arif (ed.), 2018).

Thirdly, Koranic verse talks about the urgency of variety of trees. The forest city therein must be planted with varieties of trees that will make it seemly more green. The principle of green landscape must be a first goal. “Do they not look at the earth, how many noble things of all kinds We have produced therein, Verily, in this is a Sign; but most of them do not believe,” (asy-Syu’araa, 26 : 7-8). These kinds of trees may eradicate pollutions as said in, “it is He Who has spread out the earth for (His) creatures; therein is fruit and date-palms, producing spathes (enclosing dates; also corn, with (its) leaves and stalk for fodder, and sweet-smelling plants. Then which of the favours of your Lord will ye deny?,” (ar-Rahman, 55 : 10-13).

Urban Forest in Beijing had 2.4 million trees located in the central part of Beijing. The trees in the central part of Beijing removed 1261.4 tons of pollutants from the air in 2002 (Jun Yanga, Joe McBridea, Jinxing Zhou, Zhenyuan Sunb, 2005: 65–78). Therefore, Alexis A. Alvey found that preserving biodiversity should also be an important goal in the urban environment, especially in highly urbanized areas where little natural habitat remains. Within the research from various areas of the world, he assumed that efforts at mitigating global biodiversity loss have often focused on preserving large, intact natural habitats (Alexis A. Alvey, 2006 : 195–201).

Fourthly, Koranic verse talks about the management of water supplies. It is as important as trees planting management. “And it is He Who spread out the earth, and set thereon mountains standing firm (flowing) rivers; and fruit of every kind He made in pairs, two and two; he draweth the night as a veil o’er the day. Behold, verily in these things there are signs for those who consider,” (ar-Ra’d, 13 : 3). Zhang Biao said that under a scenario of global climate change, the water conservation function of Beijing’s forest ecosystem has attracted public attention. The term of water conservation is as a comprehensive regulation of forest on water resources. It does not only give an ecological benefits, but also social and economic values. Forest ecosystem of Beijing intercept approximately 1.43 billion cubic meters of rainfall, 277.82 million cubic meters of soil water, and 286.67 million of fresh water. Beijing’s forest also provided 5.23 billion Renminbi (RMB) (Zhang Biao, Li Wenhua, Xie Gaodi and Xiao Yu, 2010: 1416-1426).

Fifthly, Koranic verse talks about the urgency of scientific research as a spirit of establishing green infrastructure. Koran urges the investing times for researches and studies to learn all about needs relate to the green infrastructure building process. “Say: travel through the earth and see how Allah did originate creation; so will Allah produce a later creation; for Allah has power over all things,” (Al-‘Ankabuut, 29 : 20). The establishment city forest planning then must be measured accurately because of Allah is an accurate creator and a professional architect of life. “and the earth We have spread out; set thereon mountains firm and immovable; and produced therein all kinds of things in due balance,” (al-Hijr, 15 : 19).

In 2020, China will create world’s first Forest City, where all buildings are covered in a million plants to tackle global warming and air pollution. It will be “the city of trees”. The Liuzhou Forest City will be home to 30,000 people one completed in a few years time. Offices, houses, hotels, hospitals and schools will be entirely covered by a total of 40,000 trees and 1 million plants of 100 species. The project commissioned by the Liuzhou Municipality Urban Planning has been designed by architects Stefao Boeri Architetti (Charlie Moore, 2018), an Italian architect and urban planner, born in Milan in 1956 (“Stefano Boeri Architetti, Italy,” 2018).

The sixth, finally, Koranic verse talks about interior structure of forest city setting. It must give pleasure and freshness for users in general and walkers on feet in particular. These can only be gotten by making spacious roads therein. “And Allah has made the earth for you as a carpet (spread out), that they may go about therein, in spacious roads,” (Nuh, 71 : 20). Forest City of Babakan Siliwangi, Bandung, has what’s called as Forest Walk with 2 kilometers of long. It is claimed as the longest one in ASEAN (Association of Southeast Asian Nations) (Mochamad Solehudin, 18).

All Koranic detail guidances on how to establish the green infrastructure models are just for showing the God’s blessings over the human being. As proved by scientific researches and findings, God knows a city without the forest city is just a natural killer. “In order that ye may find guidance (on the way),” (az-Zukhruf, 43 : 10).

CONCLUSION

Forest city existence is a goal of Islamic teachings. It is an urgent need and important prerequisite for saving urban people from polluted environment. Forest city in view of asy-Syathibi is a part of Dharuriyyat; a term means the unavoidable necessity. Islam does not only perform the urgency of forest city, but also detail management steps of it. At least, there are six Koranic principles of that are mobilizing the citizen's support, belief and piety as management basics, planting varieties of trees, managing water supplies, management based on academic researches, and interior settings that give pleasure and freshness for users. The Islamic approach within forest city management contributes to the secular one, especially to embed the spirituality into managerial practices. The benefit of spiritual-based management is to prevent human environmental crimes that cause ecological damages. Besides, all kinds of environment devastations are prohibited even though in the name of development. Islamic spirituality approach within management in general and forest city management in particular ends all sorts of debatable concepts that open possibility of destructions.

REFERENCES

- Abu Ishak Ibrahim bin Musa bin Muhammad al-Lakhami asy-Syathibi, *al-Muwafaqat*, vol. 2, Dar Ibnu Affan, 1997.
- Abu Ja'far Muhammad bin Jarir bin Yazid bin Katsir bin Ghalib al-Amali ath-Thabari, *Jami' al-Bayan 'an Ta'wil Ayil Qur'an*, Tahqiq: Basyar Iwad Ma'ruf and Isham Faris al-Kharrastani, vol. 5, Beirut: Muassasah al-Risalah, 1994.
- Abu Laits Nashr bin Muhammad bin Ahmad bin Ibrahim as-Samarqandi, *Babr al-Ulum*, Tahqiq: Syeikh Ali Muhammad Muawwad and Syeikh Adil Ahmad Abdul Mawjud, vol. 2, Beirut: Dar al-Kutub al-Ilmiah, 1993.
- Abu Muhammad al-Husain ibn Mas'ud al-Baghawafi, *Ma'alim al-Tanzil*, vol. 7, Riyadh: Dar Thaiba, 1412.
- Agustina Emmi Kurniastuti, "Pengelolaan Hutan Kota di Jakarta: Studi Kasus Hutan Kota Srengseng di Jakarta Barat," in *Jurnal Pembangunan Wilayah dan Kota*, Vol. 9 (4), 2013.
- Alexis A. Alvey, "Promoting and preserving biodiversity in the urban forest," in *Urban Forestry & Urban Greening*, vol. 5, 2006.
- Alfredo B. Lorenzo, Catalino A. Blanche, Yadong Qi, and Malcolm M. Guidry, "Assessing Residents' Willingness To Pay To Preserve The Community Urban Forest: A Small-City Case Study," in *Journal of Arboriculture*, Vol. 26 (6), 2000.

- Antje Ahrends, Neil D. Burgess, Simon A. H. Milledge, Mark T. Bulling, Brendan Fisher, James C. R. Smart, G. Philip Clarke, Boniface E. Mhoro, and Simon L. Lewis, "Predictable waves of sequential forest degradation and biodiversity loss spreading from an African city," in *PNAS*, Vol. 107, No. 33, 2010.
- Cecil C. Konijnendijk, *The Forest and the City: the Cultural Landscapes of Urban Woodland*, edisi 2, Springer International Publishing AG, 2018.
- E. Gregory McPherson, David Nowak, Gordon Heisler, Sue Grimmond, Catherine Souch, Rich Grant dan Rowan Rowntree, "Quantifying urban forest structure, function, and value: the Chicago Urban Forest Climate Project," in *Urban Ecosystems*, Vol. 1, 1997.
- Jelle A. Hiemstra, Hadas Saaroni, and Jorge H. Amorim, "The Urban Heat Island: Thermal Comfort and the Role of Urban Greening," dalam David Pearlmutter, dkk. (ed.), *The Urban Forest: Cultivating Green Infrastructure for People and Environment*, Switzerland: Springer, 2017.
- John F. Dwyer, E. Gregory McPherson, Herbert W. Schroeder, and Rowan A. Rowntree, "Assessing the Benefits and Costs of the Urban Forest," in *Journal of Arboriculture*, vol. 18(2), 1992.
- Jun Yanga, Joe McBridea, Jinxing Zhou, Zhenyuan Sunb, "The urban forest in Beijing and its role in air pollution reduction," in *Urban Forestry & Urban Greening*, vol. 3, 2005.
- Liisa Tyrväinen and Antti Miettinen, "Property Prices and Urban Forest Amenities," in *Journal of Environmental Economics and Management*, Vol. 39, 2000.
- Q. Li, K. Morimotoi, M. Kobayashi, H. Inagaki, M. Katsumata, Y. Hirata, K. Hirata, H. Suzuki, Y.I. LI, Y. Wakayama, T. Kawada, B.J. Park, T. Ohira, N. Matsuf, T. Kagawa, Y. Miyazaki and A.M. Krensky, "Visiting A Forest, But Not A City, Increases Human Natural Killer Activity And Expression Of Anti-Cancer Proteins," in *International Journal Of Immunopathology And Pharmacology*, Vol. 21, No. I, 2008.
- Roeland Samson, "Introduction: Urban Trees As Environmental Engineers," dalam David Pearlmutter, etc. (ed.), *The Urban Forest: Cultivating Green Infrastructure for People and Environment*, Switzerland: Springer, 2017.
- Zhang Biao, Li Wenhua, Xie Gaudi and Xiao Yu, "Water Conservation of Forest Ecosystem in Beijing and its Value," in *Ecological Economics*, vol. 69, 2010.

Websites

- "Stefano Boeri Architeti, Italy," in <https://www.tvarchitect.com> accessed 9 November, 2018.
- "Surah Asy-Syu'araa'," in <https://www.surah.my> accessed 6 November 2018.
- "World Population Clock: 7.7. Billion People (2018)," in www.worldometers.info accessed 5 November 2018.
- Arif (ed.), "Wali Kota Langsa Segera Bangun Tempat Wisata dan Olahraga Islami," in <https://m.goaceh.co> accessed 9 November 2018.

Charlie Moore, “The City of Forest: Chine Creates World’s First Forest City where All Buildings Are Covered in a Million Plants to Tackle Global Warming and Air Pollution,” ini <https://www-dailymail-co-uk.cdn.ampproject.org> accessed 9 November, 2018.

<https://www.langsakota.go.id> accessed 9 November, 2018.

Ibnu Khaldun, *Muqaddimah*, Ch. 5. 20, in www.muslimphilosophy.com accessed 6 November, 2018.

Mochamad Solehudin, “Forest Walk Baksil Bandung Diklaim Salah Satu Terpanjang di ASEAN,” in <https://m.detik.com>, accessed on 09 Nov. 18.

Thayeb Loh Angen (ed.), “Ada Apa di Hutan Kota Langsa?,” in <http://portalsatu.com> accessed 9 November, 2018.

The Editors of Encyclopedia Britanica, “Thamud: Ancient Arabian Tribe,” in <https://www.britanica.com> accessed 6 November 2018.