



**BOOK**  
**3**

**MANÁNAY ÁN EP-EPHOCHÁN  
NÁN ÁGWÁCHÁN CHI NUN  
KGINITTI ÁN PAPADJÁW  
CHI IMMIPUGKGÁW**





# Youth Capacity Building and Exchange Program Towards Sustainable Development and Conservation of Ifugao Rice Terraces: #Y4IRT Ayangan

**Series Authors:** Inocencio E. Buot, Jr., Ph.D., Consuelo D. Habito, Ph.D, Marissa P. Bulong, Ph.D., Mark Anthony F. Rabena, Thaddeus P. Lawas, Ph.D., Elpidio Basilio, Jr., Ph.D., Romeo A. Gomez, Jr., Ph.D., Melanie S. Subilla, Aurora V. Lacaste, Francis Mark Dioscoro R. Fellizar, Eulalie D. Dulnuan, Joane V. Serrano, Ph.D., Sherry B. Marasigan, Ph.D. & Martina B. Labhat, Ph.D.

**Series Translators:** Josephine G. Pataueg, Rebecca W. Bumahit & Gregorio Umingli

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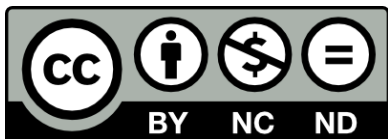


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# BOOK 3

# MANÁNAY ÁN EP-EPHOCHÁN NÁN ÁGWÁCHÁN CHI NUN KGINITTI ÁN PAPADJÁW CHI IMMIPUGKGÁW

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## BOOK 3

# MANÁNÁY ÁN EP-EPHOCHÁN NÁN ÁGWÁCHÁN CHI NUN KGINITTI ÁN PAPADJÁW CHI IMMIPUGKGÁW

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## CHAPTER 1: NUY KA-A-ÁT DJÁ KINA-ÁPHOD NA ÁN PUNNAN-NGON HANÁ MANÁNÁY ÁN EP-EPHODCHÁN (SUSTAINABLE DEVELOPMENT)



### OBJECTIVES

Akgibpfuhan toy án achalon ta-ú, mápfálin dju án:

1. Maipfákgá ngay pohchonán ojon inuy manánáy án ep-epochán (sustainable development); ngay umatan nuy ka-a-át ná djá kinapfalö nán;
2. Maipaláwág haná ep-epochán án pohchon toy án ma-át djá ngay pang-ittikgán (indicators) án na-át cháh;
3. Ohha-ohhaón dju án maipfákgá haná lapped weno humagwán hi chumatngan chi manánáy án ep-epochán chi pfobloy hi ágwachán nan nun-a-kginitti án papadjáw chi Immipugkgáw.



Hello! Apngaón cha'dju guh ten ihna ta-ú ad uwán áytoy Book 3. Tóy máhhun án achalon ta-ú etoy án book djá ipatna ta-ú án mangámmá háy pangpognachán djá pangte' -án án mangawat inuy má-áli án ep-ephodchán án manáynáy djá haná planu ná án atón pati háná uchum án mangchat hi lapped wenko munhagwán hi áy a-átan haná pohchon toy an ipa-at (attainability).

Án nakasaganá ádju'n mun-acháá áy hatu?  
Nu ooh ádjá djá, ite'a ta-ú moh.

**Topic 1: Ngáy ipfalinán nuy ep-ephochán án manáynáy (sustainable development)?**

**Máhhun án ma-acháá (Learning Activity 1):**

Ite'a ta-úh toy án áy ta-ú achalon hi oha án activity. Áy djú ni'an buyaón hán ohán video ta gwáy aton dju án manginnila tapnu maawatan djúh nuy pohchonán ipfágá inuy sustainable development.



What is Sustainable Development  
<https://bit.ly/2Hmb1vm>

**Án kginibfóh dju án binuyá? Ituluy ta-ún buyaón pay hán ohan documentary film án háy ipfágpfákáná djá panggep hi sustainability.**



The Concept of Sustainability

<https://bit.ly/2ExXdfC>

Nalpas dju? Ten kginibfoh ta-ún nunbuyá, háy atón taú moh djá punhuhummanganán ta-ú nu ngay mipan-panomnom áy cha'dju án acháá áy hachi kadju binuyá án video djá documentary film? Mápálin pay án ibingáy dju áy haná pamelya djuh nuy na-acháá dju ngay umatán chi sustainability djá ngay maipfadchang náh tatakguh.

***Na-kgu, án ná-aw-awatan dju moh nuy umatan chi manáynáy án ephochan (sustainable development)? Mápálin án pidgwon dju kgu án buyaón chuy video nu kahapulan. Achi ádjá, umuy ádju inuy miádgwa án ma-acháá.***

***Topic 2: Nuy Himpulut-pitu'n pohchon nuy sustainable development án aton***

### **Mi-ádgwa án Achalon (Learning Activity 2)**

Te'an ta-úh toy án ma-acháá hi oha kgu án video. Tapnu ma-acháá taúh nuy himpulu't-pitu án pang-ittigan án gwacháy náynáy chi ép-éphochan (SDGs), buyaón dju nuy video linked inuy baba ná.

The 17 Sustainable Development Goals

<https://bit.ly/3fhYu8E>

Háy tatakguh djá nunhinnat-on chi punnomnom wenne pun-awat cháh uláy un ohan banág nuy tigtigán chah. Etoy mehnot án ma-acháá, maphod án chonglon ta-ú nu ngay pannig dju wenne maipfaga panggep inuy himpulut-pitu'n pohchon toy SDG an ma-at. Nu há-ay oha án napili án pfumadchang án mangingunu ta gway aton hatu goals toy SDG an ma-át, ngay tulu án goals án para áy haá djá cháchuy chi mahhun án ngunugwón? Nakguni ta cháchu chi pinilim?

***Nu nakgipfoh ádju inuy mi-adgwa án activity, umy ádju inuy mi-atlu.***

***Topic 3: Nuy Ep-epochán án Mánáynáy (sustainable development) djá Ha'ah***

**Mi-átlu án Ma-acháá (Learning Activity 3)**

Te'an ta-úh toy mi-atlu án achalon hi áy ta-ú punbuyaán etoy video linked etoy cha'onáh.



Global Missions: The Sustainable Development Goals  
<https://bit.ly/34tloGY>

Áychuy náhhun án inat dju, nunpili ádjuh tulu (3) án goals chi sustainable development án kadju páhhunon án aton. Ad uwán djá ituluy djúh. Nu ikonektar dju áychuy tulu án pinili djun mahhun án goals, ngay mattig djun akem (roles) án mápfálin wenno o-lóg djun atón ta makapfadchang inuy akgibpfuhan nuy goals án ma-át. Punhuhummanganán dju djá inamong djuh nuy kapanunutan chi ohan-oha. Nakgibfoh ádjá djá in-upload dju hi facebook group. Mápfálin án i-upload dju án lahlatuh háná intanucho' djun output dju wenno i-type dju inuy digital word processor.

***Án nakgipfoh dju mo nuy activity dju? Chán áchi dju uchót penhod án pi'nonomnom nu ngáy atón djün pfumadchang hi éphochán chi pfobloy dju? Haná ni ta áy hatu án inacháá dju djá magwacháy chenoo mi án mimi'jat ádju án pfumadchang án mánáma' hi punchorbar áy hahaná humangwán hi pumhochán chi pfobloy. Umuy taú moh inuy mehnod án áy ta-ú achalon.***

**Topic 4: Háháná Humagwán hi Magwáchán chi Manáynáy án Ep-epochán (Challenges of Sustainable Development)**

**Mi-a-opat án Ma-acháá (Learning Activity 4)**

Ihna ta-ú moh etoy mila'lat án activity itoy án chapter. Etoy án áyta-ú atón djá punhuhummanganán ta-ú háná maah-upan án mangchat hi hagwán wenko lappéd hi áy ma-atan háná goals toy sustainable development. Tapnu mas maláwlawakgán ta-ú djá ayta-ú buyaón hetoy ihnán toy cha'oná án video linked.



What are the World's Biggest Problems?  
<https://bit.ly/38WYxFS>

Te móm án pinili djuj tulun (3) goals án nibisar inuy punnomom dju djá hatuh nuy pahhunón án atón, dja nun-ípfákga dju pay nán mápfálin án atón ta ma-át hahatu án goals. Ád uwán djá padasón ta-ú án tikgán wenko homo-on háná mangchat hi lappéd wenko humagwán hi áy a-atán chi ép-éphochán. Mangchat ádju háy chugwán (2) poloblemá án mattig dju djá lapped wenko humagwan hi ma-atán háná pinili djun goals. Nakgipfoh ádjá án pentó'dju háná poloblemá djá nomnomon dju kgu háná mápfálin án atón tá áchi ma-át wenko pananih a-atán nán poloblemá.

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# BOOK 3

# MANÁNÁY ÁN EP-EPHOCHÁN NÁN ÁGWÁCHÁN CHI NUN KGINITTI ÁN PAPADJÁW CHI IMMIPUGKGÁW

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CHAPTER 2: HANÁ NADUMÁDUMÁ ÁN SYSTEMÁ DJÁ MUN-APHOD ÁN PANGÁT  
TA GWÁY ATONÁN MANÁYNÁY CHI EP-EPHOCHÁN IMMAL-LA NU MIPANGGEP HI  
AGRITOURISM DJÁ ZERO-WASTE MANAGEMENT



## OBJECTIVES

Akgibpfuhan toy án achalon ta-ú, mapfalin án:

1. Ma-apfotol dju haná nunhihinnafali án pangó'oy ta punnan-ngon chi manáynáy án ep-epochán umat áy hatu at-atón tun ASEAN án apfobpfobloy;
2. Achalon djá innilaón haná niliblu án in-inát chi uchum án nun-organic farming;
3. Maputu' djá mahuhummangan djáhaná maphod djá nakiloh án ipfungan haná ma'ma-at hi agritourism etoy environment;
4. Mapuutu' haná ngunu án panglala-í djá pangpfapfaí panggep hi punhapfalan djá haná injaphochán hatu án pangó'oy manipud chin penghaná ta engganád uwan
5. Mangámmá áy chánuy maphod án pangó'oy chi zero – waste management.

Etoy án chapter dja punhuhum-manganán ta-ú haná nadumádumá án pangat djá nán maphod án pango'óy ta gwáy atonán nanáynáy chi ep-ephochán umát inuy áchi pun-uchalan hi kochot nán nitanum (organic farming), Agritourism, Zero-waste Management, djá haná panglala-i djá pang-pfabai (gender roles) án ngunu nu mi-uy hi punpadjágwán djá punhapfálán (agricultural practices).



**Topic 1: Pfangngachón ta-ún innilaón chin na-insigudchan án punhapfa chin a-apu ta-ún Immipugkhaw**

**Mi-alemá án Ma-achaa (Learning Activity 5)**

Buyaón ta-ú n'án hán video án mangipattig hi pangat chi Immipugkaw án punliya'/punhapfaa nán a-apu chin nahóp (Organic Farming Methods of Ifugao). Háy uchúm áy cha'ju djá mápfálin án iníla dju moh nu engkganad uwán djá at-atton pay nán o-ommod djuh.



Ifugao Traditional Rice Production  
<https://bit.ly/32h819W>



Pest Management in the Ifugao Rice Terraces  
<https://bit.ly/3lbQfO3>



Land Preparation in the Ifugao Rice Terraces  
<https://bit.ly/3hr7CYR>



Ifugao Rice Terrace Construction  
<https://bit.ly/34sJK3i>

Inila dju ba, án hinuy punliya'/punhapfaa chah etoy nun-a kginitti án papadjaw chi Immipugkgaw djá nipfilang án organic farming? Nu agkguy dju pay inila, ad uwan djá iniláon dju moh. Ot chán áchi dju uchót idjamlong hitoy án pango'oy chi o-ommod chin nahop án mas pay mahalimunán chi nunlináwlaw djá manáynáy nuy ka-aphod ná? Unakkayni' itutuluy dju'n atón hatu án pango'oy ta gwaáy pang-unnuhán nán mehnot hi pidgwa.

## **Topic 2: Eco-tourism hituh ágwáchán ta-úd lpukgaw**

**Tikgán ta-ú chi eco-tourism djá ngáy ka-a-atna etoy pfobloy taú'd lpukgaw. Háy penhod chi eco-tourism án ipfágá djá, nuy mahgwód djá ihnáy chenò hi áy punle'le'chán wenno áy punpaspasyaran nán mapmaphód án disuh, ti mittig hi pamapto' nuy pfimobloy djá makafadchang hi pumhochán chi nitaguwán cháh. (Responsible travel to natural areas that conserves the environment and improves the well-being of local people) (Intucho' chi The International Ecotourism Society or TIES, hichín 1990). Hinuy áy punle'le'chan wenno áy punchachal-lanánán nán gwáchán chi a-láh djá áchi má-áli án eco-tourism nu máid mipfángngád hi ephochán nuy áy nunle'le-od djá nán tatakgu án pfimmobloy. Umát inuy tatakgu án áy (muntillong/mun-ápáng) mun-rafting nan gwannò, áchi má-áli án eco-tourism nu maid pfajád wenno áchi chá punhengyè hi fadjád tá gwáy máámong hi punduh uchalón án máng-ephod nán apugwán chi chánun.**

### Mi-a-onom án Maacháá (Learning Activity 6)

Hay mahhun hi atón djá buyaón taúh toy documentary linked etoy cha'ó ná mipanggep hi Eco-tourism initiative ád Kiangan, Ifugao.



The Nagacadan Rice Terraces  
<https://bit.ly/31I2r78>

Ten nakgibfoh djun binuyá chátoy án documentary, háy mehnod mo djá pangatan ta-ú áytoy án activity:

Nu áy ha'a, án apfulutom wenno om-omam án chuy Open air Museum djá ohán má-ali án eco-tourism? Mahapö án ita'chug djuh nuy sungbat mu. Isunga, mangagwet áh háy kadwâm ta punhummanganán djun chugwá ngáy sungbat djuh. Etoy cha'ó ná djá pfahaón dju ta kadju pangpatunchán inuy aton djun mangidepensa:

- Ngáy aton chi Open Air Museum án makapfadchang áychuy án pfimmobloy?
- Ngáy atoná an tumolong ta miha'nap ja mipain-innila haná pang'oy chi Immipukgaw?
- Kas-anu án ihnáy maipa-acháá toy án Open Air Museum áy haná minangili (tourists)?
- Ngáchán hana' banág án makacháchág áytoy Open Air Museum?

Sigun hi report án napu áy Ding djá hi Pigram (WTO, 1995), irekrekomenda ná án háy tourism djá mahapö án ma-develop tapnu matungpal náh toy tulu'n oh'o-tóng án prinsipyo án umát:

1. Ta gway atón nuy itagtakguwán chi tatakguh inuy án pfimmobloy án pumhod;
2. Ta mangchat hi maápho-chán án eksperyensa djá gway panginomnomnomán haná immali án pfimmihita; oja
3. Ta gway atónán mamentenar chi kina-aphod djá inachangján chi luta djá nán nunlináwlaw án hijáy pangchenolan/pang-ehcholan nuy pfimmobloy djá nán pfumihhita.

Nu ákgguy mu pay ádjá inila, háy tourism hitu ád lpukgaw djá ihna moh án ma'ma-at ti kgapu áy hatu kginitti án papadjaw djá haná mipabuybuyá án kultura, án nu punlammungón chatoy chugwá djá mupfalin án fumóláan dja apugwán chi pihun chi tatakguh djá gway atón chá kgu án mangpaptó' djá mangpapfotán áy hatu án tawid chi Immipukgaw. Mu te moh án ád-uwán án timpu, cho-ö tun mangaali án humangwán djá mangchat hi chanág hi áy pang-promotan áy hatu án tourist product djá puntrotektaran kas oha án Heritage Site kgapu áy hatu achi maphod án impluwensya án mapuh uchum án pfobloy.

Tikgán ta-ú hatu summer festivals. Chin dati án mun-aphod án pangó'oy án at-aton chi a-apu dja mipatpattig moh áycháttoy án piyestan chi pfimmobloy dja meh'nong hi am-amangon djá ma-ómnagwán nuy nihabhafaliyán चाह.

### **Mi-apitu an M-acháá (Learning Activity 7)**

Tikgán dju toy án video mipanggep hi ka'a-at haná na-insiguchán án ed-edjam:



Ifugao Traditional Games  
<https://bit.ly/36VNBWa>

Kginibfoh dju adjá án binuyá chi video djá intucho' djuh nuy pampfa/sungbat dju áy hatu dámág:

- Haná na-insiguchán ba án ed-edjam chin penghaná djá maphod án tourism product?
- Ngáy atón haná tatakgu án mi'mi'jat áy hatu án ed-edjám án mipabuybuyá djá ihnáy pfo'laón cha pihhu?
- Ngáy atón met toy pangipattikgan áy hatu'n ed-edjám án pfumadchang inuy punhálimun dja pangipapto'án hi kultura?
- Kas-anu nán pa'ihon haná mapaniyáw án pango'oy?

Mibasal áy haná sungbat dju, pa-annomnomom dju nu hinuy pangipattigán áy haná ed-edjam nu piyesta djá maphod án tourism product.

### **Mi-agwalu án Ma-acháá (Learning Activity 8)**

Háy tourism djá ihnáy kgúy áchi maphod án epekto ichát ná. Ihán inacháá chí Save the Ifugao Terraces Movement (SITMo) chitá-ún lpukgaw djá inila ta-ú mo hatun madi án epekto na.

"Unot háy importante djá, hinuy pi'jatan haná pfimmobloy inuy punplanuwan djá maipfágá weno machutu' chá nu ngachán haná mapfolot chi pfimmobloy án makapfadchang hi pumpumhochán nán nunlináwlaw djá háy nitakguwan cháh án ichát nuy tourism. Umat áy haná tatakguh ágwáchán chí World Heritage Sites rice terrace clusters, nu inuhummangán chí pfimmobloy án áchi chá atón nuy rituals weno nuy ma-át chi pfa-i nga pfa' -ún inuy ustu án ma-ataná, djá áchi. Ti nuy pangatán hi áthichi djá ohán pamihö hi kultura djá pammati, djá panijagwón chí a-apúh sunga hatúh nuy áchi kuma ma-át. Umat met lang hi pfobloy ad Nagacadan djá Julungan ad Kiangán, chichán pfimmobloy djá nangammá cháh lenteg án mang-áchi hi mángamma weno munhamang hi apfong djá uchum án istraktura gwáy ágwáchán chí rice terraces ti puma'éh hi punbuyaán oja lo'tot djá nán papadjaw djá mahukatan u-cháá ná ti punpata'chukgan cháh moh a-apfong. So, hitoy án lenteg djá náhhun án ná-ammán ta gwáy atónan áchi ma-át nuy nakilöh án epekton chí tourism." *SITMo (2008, p. 85)*

Tapnu ihná háy sungbat dju áychátöy án problema, aton djuh toy án activity:

Nomnomon dju án áy ádju mángammah tu-chó' áy Mayor nu mapfalin án ihná háy ma-át án tourism activity inuy pfobloy dju. Mahapö án iha'ad dju nu nakguni' ta ninomnom dju nuy án activity djá kas-anuy ka-ap-aphod nay cha'dju. Mahapö án ita'chug djuh nuy lachón djá gapún nuy activity. Idchum dju án ipattig nuy maphod án maichat na pati nuy mapfalin án punkuranganáh.



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## BOOK 3

# MANÁNÁY ÁN EP-EPHOCHÁN NÁN ÁGWÁCHÁN CHI NUN KGINITTI ÁN PAPADJÁW CHI IMMIPUGKGÁW

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CHAPTER 3: PUN-EPHOCHÁN HÁY MAPHOD ÁN NUNLINÁWLÁW, MALENGKHOP DJÁ MUNHINPAPAPTO' ÁN TATAKGU DJÁ MUNHINPFADCHÁNG HI UMACHANGJANÁN CHI OHÁN HINPAMOBLOY



### OBJECTIVES

Akgibfuhan toy án achalon ta-ú, mápfálin án:

1. I-apply dju haná manáynáy án pango'oy chi ep-epochán ta mapfadchangán haná moh án tine'an chi tatakguh;
2. Mangephod háy punnan-ngan chi náhámád án ináchángján chi pfimmoboy án Immipukgaw.



Nu ittig inuy mi-appet hi ep-ephochan chi tinatakguh, mápfálin án nuy maphod án pi'takguwan nán munpunhapfa djá ma-át nu nán lináwláw chi nunhitugwán chá djá maleneh, ma-mallenggóp chi achô chá, djá ihnáy mánáynáy hi pi'pfo'laán cha inuy unig chi oháy tagwon. Pumpumhod pay chi lopóng (level) chi a-cháa chá djá ihnáy pun-oh-ohhaán chi pamelya djá humhumcholan chi pfimmobloy. Nuy resulta na djá mangichat hi maphod án itaguwán chá.

Núy pamadchangan án mang-éphod inuy ohán pfobloy tá munpfalin án eco-village, mápfálin án ite'a inuy ap-aphochan án gwachá mo áy chichah. Hichuy chi pangpognachán án mángámmá hi ohán planu ta mephod chi nunlináwláw, malenggop djá munhinpapapto' nán tatakgu djá munpfafadcháng ta umachangjanán chi hinpamobloy ta gwáy olog chan manchoo hi uhtu áy haná kahapulan chi nitakguwán chá án munprogreso.



**Topic 1: Mahchö án nagwá-chán chi apfálinán dja án-amin án ináchángján toy lutah**

**Mi-ahijam án maacháá (Learning Activity 9)**

Mahun ni'an án buyaón ta-úh toy án video cha'o ná ta a-chalon ta-úh nuy opat (4) án lentég chi Ecology.



Environmental Literacy  
<https://bit.ly/2HoDgtq>

Háy ma-at etoy djá i-drawing dju djá inohha-ohhaón dju'n inpaláwág ngay ni-atán hatu án lenteg áytoy kginitti án papadjáw chi Immipukgaw (IRT).

**Án kginibfoh djú? Ituluy dju moh inuy mehnót án ta-ú a-chálon.**

## Topic 2: Nuy bu-ú an umatán/buyán chi Eco-Village

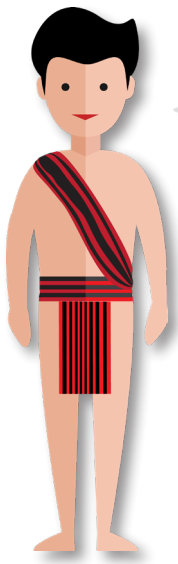
### Mi-ahimpulu an ma-ácháa (Learning Activity 10):

Ád uwán djá achalon ta-úh nuy umatán/buyán chi eco-village hi ayta-ú punbuyán etoy video gwáy cha'o náh ta ihnáy ma-ammán inuy nomnom dju ngay umatánh.



The Concept of Eco-Villages  
<https://bit.ly/2ITEVr8>

Ngáy pannig dju, hitoy an pang'oy chi eco-village djá mápfálin an ma-át inuy pfobloy dju? Athitu, tapnu mapfadchangán ádju ta mapanoh nuy sungbat dju, padasón ta-ú an ed-edjamon ni'an nuy penhod dju'n ma-át. Gwáy oha áy ch'dju djá i-drawing ná háy design wenno picture chi eco-village inuy nunpfoblodjan dju. Makgibfoh ádja djá nunhuhummanganán dju. Ipalaáwág dju ngay kgumapu ta umat hichi nuy design wenno itsuran nuy in-drawing dju.



Hanaót ta inam-amlong dju kguh  
toy Book 3. Háy importante  
djá cho-ö inacháá dju djá cho-ö  
móy manomnom dju án solution  
ta pfumadchang ngáy atón ta  
mahalimunán djá mipapto' hatu kginitti  
án papadjáw chi Immipukgaw. Ot etóy  
moý nangkgibfuhan ta-ú hi Book 3.



## REFERENCES

- Bye Bye Plastic Bag. (2016, November 8). *The world's largest lesson on 17 SDG 2016* [Video file]. <https://www.youtube.com/watch?v=1ttQZ57zvVY>.
- Complexity Labs. (2017, May 18). *The rise of sustainability* [Video file]. [https://www.youtube.com/watch?v=L\\_skrxn71k&ab\\_channel=ComplexityLabs](https://www.youtube.com/watch?v=L_skrxn71k&ab_channel=ComplexityLabs).
- Consortium for Unfavorable Rice Environments – International Rice Research Institute. (2016, May 22). *Ifugao heirloom rice production (land preparation)* [Video file]. <https://www.youtube.com/watch?v=iZo-vouWdhw>.
- Ding, P. & Pigram, J.J. (1995). Environmental audits: An emerging concept in sustainable tourism development. *Journal of Tourism Studies*, 6(2), 2-10.
- Eco village designs*. (n.d.). [http://www.sustainableecovillages.net/eco\\_village\\_designs.php](http://www.sustainableecovillages.net/eco_village_designs.php).
- FN-sambandet Norge. (2017, May 4). *What is sustainable development?* [Video file]. <https://www.youtube.com/watch?v=7V8oFI4GYMY>.
- Food and Agriculture Organization. (n.d.). *Globally Important Agricultural Heritage Systems: Ifugao Rice Terraces*. <http://www.fao.org/giahs/giahsaroundtheworld/designated-sites/asia-and-the-pacific/ifugao-rice-terraces/en/>.
- GMA News. (2017, February 10). *Nagacadan Rice Terraces sa Ifugao, nagsisilbi na ring "open air museum"* [Video file]. <https://www.youtube.com/watch?v=ZfGICmpns0>.
- GMA Public Affairs. (2017, June 25). *Kapuso mo, Jessica Soho: Laro ng lahi ng mga Ifugao* [Video file]. <https://www.youtube.com/watch?v=5kWbMWejhC4>.
- Ifugao heirloom rice production pest management* [Video file]. (2012, November 5). [https://www.youtube.com/watch?v=wY6d5lL\\_6c](https://www.youtube.com/watch?v=wY6d5lL_6c).
- Ifugao rice terrace construction* [Video file]. (2011, November 23). <https://www.youtube.com/watch?v=JBMji3e3c04>.
- Ifugao traditional rice production* [Video file]. (2011, November 23). [https://www.youtube.com/watch?v=j\\_WttXQI5ck](https://www.youtube.com/watch?v=j_WttXQI5ck).
- McIntyre, G., Hetherington, A. & Inskeep, E. (1993). *Sustainable tourism development: Guide for local planners*. World Tourism Organization.
- NowThis World. (2015, September 27). *What are the world's biggest problems?* [Video file]. <https://www.youtube.com/watch?v=YY9nxG2ZQ7w>.
- Project EL. (2016, June 5). *Environmental literacy and the four laws of ecology* [Video file]. <https://www.youtube.com/watch?v=rcbtcZzpV94>.

Save the Ifugao Rice Terraces Movement. (2008). *Impact: The effects of tourism on culture and the environment in Asia and the Pacific (Sustainable tourism and the preservation of the World Heritage Site of the Ifugao Rice Terraces Philippines)*. UNESCO Bangkok.

The International Ecotourism Society. (n.d.). *What is ecotourism? The definition*. <https://ecotourism.org/what-is-ecotourism/>.

United Nations. (n.d.). *Sustainable development goals* [digital image]. <https://www.un.org/sustainabledevelopment/news/communications-material/>.

United Nations. (2017, August 18). *Sustainable development goals: Improve life all around the globe* [Video file]. [https://www.youtube.com/watch?v=kGcrYkHwE80&ab\\_channel=UnitedNations](https://www.youtube.com/watch?v=kGcrYkHwE80&ab_channel=UnitedNations).

United Nations Educational, Scientific and Cultural Organization World Heritage Centre. (n.d.). *Rice terraces of the Philippine Cordilleras*. <http://whc.unesco.org/en/list/722>.

United Nations University. (2010, August 12). *Mt. Fuji eco village connects to a greener world* [Video file]. Retrieved from <https://www.youtube.com/watch?v=AP8G1Z-RLNI>.

Youth for Ifugao Rice Terraces. (Photographer). (2017). *A female farmer harvesting crops near her rice field* [digital image].

Youth for Ifugao Rice Terraces. (2017). *Bugan clip-art* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2017). *Golden apple snail in a rice paddy* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2017). *Hungduan Rice Terraces* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2017). *Rice paddies in the Hungduan Rice Terraces* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2017). *The Banaue Rice Terraces* [digital image].

Youth for Ifugao Rice Terraces. (2017). *Wigan clip-art* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2018). *A community in the Batad Rice Terraces* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2018). *A farmer in the field* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2018). *Ifugao wooden bicycles* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2018). *The Batad Rice Terraces* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2018). *The Nagacadan Rice Terraces* [digital image].

Youth for Ifugao Rice Terraces. (Photographer). (2018). *Tinawon rice* [digital image].

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