



Plagiarism Checker X Originality Report

Similarity Found: 0%

Date: Wednesday, September 30, 2020

Statistics: 16 words Plagiarized / 3631 Total words

Remarks: No Plagiarism Detected - Your Document is Healthy.

* Correnge ut aizr _mea @ yhoo.c Ef fect soil and on of cadmiu ndonesia Alizar 1 , * , Ap 3 , Coelius o Aima 2 , 4 , an Tsugki Masuag 4 1 Stt tehni akumbuh Agriult 26271,We umaraIndonea 2 FeraUnirsi Agriulure okutNiri 3 Soi ie rtntof ulureFaul of Is versi ,Indonea 4 Faul of Lfe aEronmea l inc neUnirsi 1060 shiwasu,Mat, ma 504,pa Abra T ts udy wa tcrreea prent t stiof a meas speal on actura nd - actla s and vesemes n laio l eon nd opogra atiwaeds.

T he udywactd a deild lsurveyby cleti146 lsaeba on lnd ,soi mi nd opogra ia23 ve semes mpl.T waextctd 1 HCladeermid T sultshowe ttt oncn tton Cd soi nd ver dint we ow n tity bad FAO reommeton (Cd 4 kg) wih only4 of saisiecaid eee i the tc vel . Vola sh MountTIVolaia tsourceof iS umani waed.Cd oncntti wa liaawih gh leon,whih ndiat tl tnshton ausebyhisoi rosittacumuleseme n ans nd vers.

A griulura l wa found tbe l i soi nd l ccni ebyhiR cor nd nd tphyhee t irese i Cd oncntrai of he soi. T udyclld hat Cd anceisois maybe iued bysoipH,txt totlcrbon , eon cors , a tphy . 1 Iroducton Sui ate rsh scaped hb bj insivrtual pr inest Smatrovce an und insiv chal ers d esticid u sininu tiono G reen R evotionin19 in In .

Sumanwsh as sho , is u f r proctio (24vetabgd 25, mix ard 14, men(2, cont pu (slash andbur sh (%)tea ptation (0 anfoest resere (16 , 3 Fars enpoidUr Cl, dSP - 3 or ve tabgden edgds d rpu w e o crsontrts cr agicurproctionDutopu ow wsh e as eenanexpSIONoagicur lan bcud th fest o n r curland Thefoe, thwsh uner anacceler sion [] epted that il o rlts agicurland pe sers vmetal rob dloo agicurpdu. errundstaningth ersiopris verimprtantoenrfo sity. Inas troical egn ith ighrfall thught e .

S oersioninInesia oe f thmoserios uro vontaldad plem w call fr spatenn4 Javi

slandsowfmedfrm oic ils and wror 89 tohe anavagero - 12 Mg / h /y rltin ecoloo \$34 - 4 miln F ars inthrio ffedeigty ercen o e ss as rlt o e eclinin r cur puity [Tomeasue il onon wsh wertharmeological min matio b n moel prachtailoedto e esear oectiv shldbado p f rmeasuring ersio on small loexpime n [6Uivsal il ss eqationUSLE], whreqir oly f antested int arrcanbu a l mae and w servn lan wh h ve b sed thught on w le jn in f ves inelati o case at han [1,8 I eterins o ersio dU wu to estimathlevoosersion e loscale bu hev , exanedtothwsh by tegating Uw f S .

E rsionresti y U pred e rrlle th at r thwsh u[. Thcanhoev e rv u Sedt D elivy R atio(R)SDR wichis 3 osion(D)inatedw f Itol, a r - b ysical il on d pict s th dibunof atiooal o also estie thsololon thwshedscale trle coates r feckg [10]. , 03001 (2018) MATEC Web of Conferences <https://doi.org/10.1051/matecconf/201822903001> 229 ICDM 2018 © The Authors, published by EDP Sciences.

This is an open access article distributed under the terms of the Creative Commons Attribution License 4.0 (<http://creativecommons.org/licenses/by/4.0/>). Gerphanchcal roties fsoin thwshtomeasue il od obhe een rr y ,1]. In2 , thavagsolofoth Sui ateredw76Mga/y hthcria we iganded e o f don toan - 25/hnetail , thistru o ersioinSuma nwsh is as ch 51in seve date iterfndconinup aran49inlowcria ouninlolanandf ar t th wfo at eroedso fm e ig lainwproando e lo ws [8 Hoev, eavmetals avnob an. e e osed nthdibuno Cadm () thater.

Moerization fagrrandinstr exanncanunprerhdledcau enirmen otionBefrth os, enirmen aselinstumubefoced[11 Hy metaicclud Cdn thmoert soces fenvntal otanfou ater kies iota, uthappearce fcadmiu()in sedts ises ronr soces fweathingo soandanroenmateials oagicurand instrw []. Hmetals nbf evywerin e atic vont 14Soo thhy cotamints e otanbse th tentoi city ropties] dpotial adereffonhu ealthifthy ls av reddoulev as toic lluts.[1] Futhmoe, 7Hy als chas miu() sh moe exeme toicity, en at low Icr cenerationofCdinthenvnt intioo ntenally y u ctios ccu as rlt thrigic ities chas in, milgo go n, pnofagicur ftlizer d ucounTh e misno th activwbhmfle vmenan man [- 19 Hy indgCdcalso e red bnal cesses, chas edibtio ace elet bnfm o eglithwerg bsuace suace ater , y lo, y pcesses fphan micalrnorr ine so [20 - 2]. Thexe muno eavmetal()in agicurlan oug atio atero oly s natio ardbualso af thquansafod rocedinthsowh come d bman [2].

ThSui ateredinWSua, nesia, is piexleo settgwhe e se fsuch w na otial rfoagicur eco ms dmanealthSouces o Cadm () inthSunwed cludirign ater, vlcanan res o ftlizerandesticid its uas cr sce th G een R evotio" sted In 1923 . Sotexrsoi l Hsotocar d log chactercanba noofthavility f cadm il. rhic actoand il sion canbcadutrspoters e atersh. D rchothdibtioofCadm agicu ltual sh as ob epor ate. Thstuy chacter s thdibun eavmetals espCadmiu() il iv imenin thwedinnr n pogaphand il sion statu 2 atals m et 2.1

Sty ar Sui atersh, er5830his cated So dict (d0 o 3' " 10 o 440'' loitue 0 o 2' 1 – 1 o 154'' o ation o 00m d200m oe levan ou50k east fthPad (1) Tho ufoth wsh Sinar e. manwsh h is catedin a trical n h a erh mate. Sui atered)consists f ivsuatered Lembg(),Sui S2, ran(), aw S4) an man)suba tersh. Il iverinth wshf rothhds e ws eties toLakSingak(Fig 1.

nthe ighs Mot g anactivtyp - Avlcanotho 2 Ail 05erutedandrvt Icanic , a rlt , vo ic hcoerthsoard n Talanas ickas The esiduefect rlt fm erp gin fo year []. Sui atersh il is inlucedbMout TalanVoic shOxic apuanandanic hmitrpt ichis istr ibu e landarof S1andS2TypKiudlt divfrcov dsits andorbasalt h dibu thlolan landfrm S3 dpsitionof S1Aic opepdiv roreralluiuan co luial epoo a h dibu low S2S1S3, , andS5. ic istroepis cov dsit eredfrothlavthis istru S5, S4 , andS2.

ic tropt div rocov dsits ardibu oninS3Thdfen gloic sofmils ill fthCdin agicurils [23 2.2 Soil, rir se sampling , and anaysis ThStud w cocted usin gndsueys 14 sites asedonthtypolan se, te d to poapic ositio Fig1)Sosampwe enat a ep f0 - 20cm ith anassutio that e eav metalacculn(as avle an tak bpt ointhdthWhe en2 iv sedts at ead m u pd o e w Fig 1A s ampo er om Cl, ran - 36as resene fthagicurftilizercony u y arrinwshs andvoic le we tak , t an f coten Cd. Soand rer sed t mpes we dr d ed w meshsize f ph - chal alysis. Exactab h e a v y metal()wdmiedbfst exactingw01mo / L Cl.

trle ace men wdeteredusingInctivCo - Amic miss nSpoy Shzu CPS 0, , 03001 (2018) MATEC Web of Conferences <https://doi.org/10.1051/mateccconf/201822903001> 229 ICDM 2018 2 Kto, inthSoan loical ry, She Uiver Fg. 1 Lton reah n heform 3 - dieona p (3D p) haeans hesaing soi sas d crcl) arir dint(bl ile) n niwaed,We Sumae Sop as r sin e lass oe methdw so: ater atioo :2.5[25So sampwe alyzedf tal on TC)conts. Fingr d il les e v ied 80fo apxy 4hTocarb as etermin y e dy mbstionmethd elsoet 198 sina YacoCNCoeMoel - 700(animo .

Co yo, an)Sotexrwmeasuedbpette met hd[]. eavmetal miu()inrer sedt d er eran a o si e alysis f()insoWcolan umap il s, antopaph maptosupr thrchEstites fSoer as een calcu y e SLE dinpevs stuies[8and f Mapp il sionand miuin3Dmapwe coctedinSuer9[27d ithdfm frs il seys,pogaphs geoy map 2.

3 U model Soer calcu dusin nerSoLo Equn (U [7 Sixero rs e eed measue anal sil loonateredcale : $E = K \times L \times C \times (1 - \frac{W}{A}) \times \frac{R}{h} \times \frac{1}{y}$; R is Rainall sivity acto imen oless) K is hen soerib(imenn; L is go e e fr imenoleess) S is pf dsioless) C is opcov actorimenn; P is f thaccots o e fects fsocoseration pactic es(dnless). I rd rthe SLE dtosully r soero f e atered thmost mprt fr thbevation f ainf E rsiv(R)and so E rodility K) f [,3].

Thinstepinmakg3d menmapof ersio ddibtionofCd terlabatory alysis s didg wedin 31 r r 25mx 1 . ase is th allocatedandestimatedineach gidcooinan illedbd ata erotain bringma p dsat magf e ht flanduandf pgthe se fthe kig th 7 . Qane istrutio il ersio dibun o Cdarmapedw h ofrf9. 3 Results dion 3 .1

Gene ral admium ntion ot soil propert Ta1 sho at e cenatio f Cadm in Sui atered b e t ftoicity ased FAOandd o3.[2 - 3 Tabl Men 1 HCl eractbleCaum ceraon a otr ne l rtis Locon Cad - mi (Cd) (mg/ Sois pH TC (g/ Suma - W 146) 0. 5. 34. Mamum 0. - - Rir din - W 23) 0. - - Non ontmid l Jan* 0. 5. 64. Contmitesoi Jan* 6. 5. 34. 8 Tc lvelof 0. 5. - Tabl Contnue Locon Sois Sand (%) Sit (%) Cl (%) Suma - W 146) 12. 57. 29.

Sitycl Im Mamum Sitycl Im Rir din - W 23) Sa - Si cay oa Non ontmid l Jan* Sa oa Contmitesoi Jan* Sa oa Tc lvelof - W=trshe (2003) xtctd ;*eraceby 0.M HCl(Kam ta. cnaesoi Tkizwa,Rokuha,Hochi gat,Isa ceavea s ois);Contanaesoi l aMiya, ta ca vetae Thcocenno insoin man wsh popotio tothcotr Cadm il ncotamin il an b ata o[1uthsame exactio .1 , 03001 (2018) MATEC Web of Conferences <https://doi.org/10.1051/matecconf/201822903001> 229 ICDM 2018 3 M Cl, ith sopHo 5 .

5 uderintocarbo (tend sil texre. Tab1andTab3show at nthee 3)ofth 1 il mplonan ne)of e 3rer sedt mpcotaing el c eed e toicity el bthFAOin20 Cd0.4 m) Aitioally, meanratio of Cd riv simen des t ceedthlimiotoicity y Oin2. Nereless, the a sligherCdcontrn inthsedt mp ed iththmeancoceneration oCdinthso Thindhthe as eenan acculatio fCdinrersedt ia aslo materbsol o.

ccoingto[3] e Cd w nally rt il ecauofwingo i l penmaterl. 23and[24rr thpen mater o Sumanwsh doatedbv lcan ashwh as silty losotexrand cotaingtrace men dhy l. 3] Cadm e il b e dflt to rv thcadm cculates dis epsited n e il vios emifr [4] roted that issoed ntrts e medtobtranorbsuace uno anbern, heas arlate uienar asso ithdlacemen o il osio , sedt trspt low , sedtdsitio ro and ersio thrf. Tabl 2 .

ErablCaum diresoi ptnd nd usetyiSumniwatrsh Land use Cadmi(Cd) kg) Soi pth m) 0 – 20 m 20 – 40 m 40 – 60 m SW 0. - 0. 0. - 0. 0. - 0. MG 0. - 0. 0. - 0. na T 0. - 0. 0. - 0. na Cm 0. - 0. 0. - 0. na F 0. - 0. 0. - 0. na B 0. - 0. 0. - 0. na A 0. - 0. 0. - 0. na S 0. - 0. 0. - 0. na Vg 0. - 0. na na Rb 0. – 0. na na SW= rieproduci ;mid rde t; Cm=imon; fore; bush; ang - ang; S=tlme;Vg=getble Rubbenotna y ze Tab2 sho hthe e il le in r pu and egle inCd exing thtoicity el bthFA 03(Cd0 m) Th oerlandu wer lowlev i.e h icity lev rmed b FAOLE 4. 3 .

2 Three - dimens (3D)map erosin Sumani w atershe Soero 3Dmapis wninFig2werpule an loinicat e eas iththhhso ersioMean il o 76 /h(le . S oero harn ut g 1 - 20 Mg / h / y u

pdo S1 and S2 e illy ea n thwsid o Sui ateredis 20Mg / h / y (u pp ositio ,S4,an . T hlow pt is dmin y il sionlow an14Mg / h / y th loerthpono , 2S3S4 dS5)In adition eponorinarclose e iv ps.Ardin ,2,33tharwthhest altitue maly p eas.Thp h th hest il sioncau thchgoffoest to agicur land Fg.

Spataldirii of stitd l rosion i 3D ma iyr n ma trshe(S1=eng subwaed Suma subwaed;S3=pa subwaed; wa subwae Ima subwaed), We t,Indonea Tabl 3 . Soi eon ctiniwaed R K LS C P Man Eron Mha/y n=10840 i 4005. 0. 1. 0. 0. 76. R = Ranfalevi ct; = soi rodilfat S = SI nd efat = Crop cor;P = Conseton fat or;A = Soi erosi 3 .

3 Dribution admium C soi l ridiment atershe Thsoan realed thCdlevex ed toicity lev inthsuound of montainTalan (u p o Sd)andalsoslighherin low (er sitionoS1S2S3S4, () . e Cdlevarex ed the xlevinrer sedt od lan Fig) duto acculatio fvicanash. Th Glogis b anesite . il e Adisowic hinda igh vlcanash. Basaltic dha aristic at is eredfrom oic tain eavmetal indgCd . H ighvoic munaff s thcont ils.[24Reptedthat e asaltic anesite r ovicanashofMout taing SiO 57,TiO 670 /k)MnO2(80 /k anthace elet (0 mgg , 03001 (2018) MATEC Web of Conferences <https://doi.org/10.1051/matecconf/201822903001> 229 ICDM 2018 4 Fg.3 T 3D ma dirii of eracae Cd - 20 m soi ptiSuma trshe Fg.4

T 3D ma diri ion eraca i rir seme iSuma ed H il sio f ed CdThdibtion sheda ege rrrn(Tab5ThCd cocenation w lo eas iththhhso ersio(Fig2Fig3Fig . Th i ni cates at e trslon as ccued. 4rr at e suend utrts cludg taininth eredsednfrm pe siocau o ntrts so[2] epted at unTalan Vlcanash taintre let id(10 mgg ich exsedit seve wergbw ansole anacidcompedwoth ry minals 4,356 Tabl 4 . T r soisaend veseme saeilel eeett nd - t thr eds vaue ccng tFAO n Extrta - bl Cd (mg/ Soi e (0 - 20 m) Toxii lvel F % sampl n sampe 0.

- 0. 32. 47 beow 0. - 0. 30. 44 beow 0. - 0. 14. 21 beow 0. - 0. 17. 25 beow 0. - 0. 3. 5 beow 0 . - 0. 2. 3 tc Ta 100 145 Tabl 4 . Continue Extrta - bl Cd (mg/ Rirseme sampls Toxii lvel F % sampl n sampe 0. - 0. 4. 1 beow 0. - 0. 39. 9 beow 0. - 0. 30. 7 beow 0. - 0. 21. 5 beow 0. - 0. 0 0 beow 0. - 0. 4. 1 tc Ta 100 23 3 .

4 The c admium C cont in s oil , nic as , and chemicaert r Th rlts f alysis f trle in vlcanash an ftlizerconu y ars e r pu , eg le ard dmi ard e pesen le . C h errapp y fmerarkCl, - 3 , uea er untend vlcanashcotaing m Cd. Hov, ere is osignicanCdcocennThdoftlizer u dbars year e K(6kga), - 36200 k/handurea 00kg. Voic p l ied sigift tothso wh Talangvoerted Cdcocenatioin e er as lower coar w e teno soThs hos at e cocenationo miu()inthftlizercanb nligle.

incooan th rgic ers wnt an . This asedoassutio th fmerdonoumu o inthstuy ea . 23 rr at e soro eavmetals ered fm wer oimarminals d voic ash 3 . 5 The actors determinantof c

admium distion Coelatio etw e trs dso peris resen 6Thpclay, fr anil er shedege
coelatioith Cd. , 03001 (2018) MATEC Web of Conferences
https://doi.org/10.1051/matecconf/201822903001_229_ICDM_2018_5_Tabl_5 .

T xtratae Caum n heca rtir a vola aapossiltyontanai Frlze 0.M Cl eac i fetilze Dose (kg/y
Cd kg) KCl 0. 60 SP - 36 0. 200 Ure 8. 200 Vola a 0. 2000000 Contamion um ough hec
fertilzati anvolaniash Cadmi(Cd) ha/) TaFele 1718. Vola a 620000 Conteof 1 MHeaceCd n l
p th - 20 ci1 ce Soi Cadmi(Cd) ha) Ta 300000 Th imp s tat lowpclay, f , anso ersio rlts
hhCdcocenerationinso[] rr thntrs ofCd inoh at H 1 anp . e ilt nt, and paph psitionsho poe
relatio ith .

is s ththsilt ar andtopaphcoldexlain ththCd ld rlt fm e eathingo lcan ash Thstudy owerdnt
estig Cadm (Cd) cocennin vlcanash] epted at soinSui atered d rouingMt. g
hchacterthcanbwer and cotains hy me Tabl 6 . T tx orreliCaum th l propeie ef aor, nd
opogra n=146 Cadmi (Cd) - 20 m) pH 2 O - 0. Cl - 0. Sit 0. Sa 0. TaCa(TC) 0. R ct - 0. K
cor - 0. Lfaor 0. C ct - 0. P cor - 0. Soi rosi(E - 0. Tphy m.a.l) 0. * 0.**P< 0. m..l=mer
abovesel Tolarn(TC)shos psitivcornw Cdinicating at is mu y e aditionsoersioshowa ege
rn ith CdThme anthCd founlow whe il ersio hh.

35 rrthoanmaials f cotainan sorbtrelts dheavmetals indg Cd . I eterin e nipbeen
cocenationo an ero r, po rh , coelatio , andPCA we lo (le le 7 Th clearread fr dming
thsp dibun of in Sui Wsh Tabl 7 . T ie omponentalys vau eof t soi rosifac opogra, a d
dmiini waed Varabl Pvals Agrctursoili SumaniWateshe P P P Egevae 4. 2. 1.

Cd - 0, - 0, - 0, Cl 0, 0, 0, Sit - 0, - 0, 0, Sa - 0, 0, - 0, pH 0, 0, 0, T - 0, 0, - 0, R ct 0, 0, 0, K
facor 0, - 0, - 0, L t - 0, 0, 0, C faor - 0, - 0, 0, 3 P cor - 0, 0, 0, Soi rosi(E - 0, 0, 0,
Tphym.a.l) - 0, 0, - 0, ThpesenofCd thsame ro ith togrh(andtocarn TC)in e Tab 6andFig5
)an ongcornamog em old suest thogic pu(er,pe an rgic rm pultrwas oo rlects e
lexnroforgic r[19Wile a on elationipbetw ma bduto a mmo thogic rwhppties e si toat
oemisty [1]. Fg . 5 Retof for griuluralsoi n ni waed:ld ot of hefi tecnt obtid n t alys.

ThCdinsoint hSui ateredshowpoo r nativcorelatio ithp, R actorKfr, fr,P
actorandsoeronicating at atual frs arat lay (Rainall, r ar pensoce o e il e, d se typan d ,
03001 (2018) MATEC Web of Conferences
https://doi.org/10.1051/matecconf/201822903001_229_ICDM_2018_6_soer . e
ndaninsoarthulik tobconlledbsopHtxe, ogy ersio actorthcanalsoplay mprt oas dibun of.

ThenichnofCdinsome il l(an 4 he isenfrm mohdsitio an manactiv ecause ftheadacen i nsiv
agicurann unTalan lcanoThCdin somigt e redinthis ea y e roo leachg, sioruffersioand
pecipn Coersely, m ansamprlect e oig ro nal eather cesses rmater, bthcocenationofCdis

igh e il coar thfertilizer(Tab4) Efft ldb madto ocothcota minn fCdin agicursobse % fsosampconed Cd> .2mgg(le) .

A the mb platio crinInanu fchl ftlizerandpe crthpor cotaminnf Cd so l will inease 4 Conclons CocenationoCadm Cd)in il iv sedt erloertoicity el fFAOinSui wshDibtionointhwshedhb affected y e oingfrs: lcanashh affected e nrelatio ndl acterb h lcanashcont tal TC)Th Cdcontratios erlowonthwest e f wshwh as curedmaial ancatio cau y igsoersioThlow il H, ertage o anh fran il on togrhmadCdcontr ise il.

e cocenation fCdis fen y an e acculatio fsilt nthso Eft sholdbmad toruthcotaminnofCdinagrltual il. s t hnuerofplatio crease onan sed o emical er dpe crthpole r fCdotaminninsowinease. e rmmen op il ater serv pactices was me ps eduCd h armlan, oodanus,antoavo sole moemen Cdy ero toe dowstr . We siely thaKenrikdiiIndone nd PPM AndaaUnirsi tisupportits rearc Refs 1 Alizar . SaidHu sn, ari, Iono Hmailis,HSorT. WatsukandT. Masuag , Trop .

19 , 1 201) 2 AlizarA. Said snR. Inda, aran Hmailis,H SorT. WatsukandT. Masuagics. 19 , 1201a) 3 HSor aran . Sato U, Hsn, AlizarandT. ag , Perik . J. Tr. AgrSci. 39 , 4 (2) 4 AKumanarandB.R.Mitch , Joual il d W Con . 52 , (7) 5 WldBank , RepNo12 - Inesia , (Wing, D , 19) 6 G, arG, .Aeesies, D.McCooan . Yod , AgHdbVo 7 (Winto C, 19) 7 W. ischmeieran .DSmith UDA Hboo537 . (Wing, D , 1) 8 AlizarARon Masuag , J opSo 18 , (3) 9 L. uC. J.MoanandP.P.I

, Eniromen Moellingfar 21 , (20 1 J.Scht, .VererandA.Mich , Caten 3 , (9) 1 S.AnnatarS Juen .Ro , Caten 38 , (6) 1 Alizar , HaCip kum o. 03 , (DenI Menmhm RI , 2) 1 S zukN.Dani, yodoan .Semarto , Achron Toxl, 9 (10) 1 J.. rnn, dB.A. er , Enir llu 1 , (20) 1 C.M. inana,J.OOkwoP.N.Shalala, ang , Iv SciTechnl 6 , (2) 1 R.H . ams,O uandC.JZav , J Envonno 5 , 4 (2) 1 HY, .L. se, . b , Sci tal Envon 285 , (2) 1 R. ico, .

alerand cas , Chs 6 , 3 (200) 1 AlizarMuk, Aizal, .R ahn J op So 21 , 1 (201) 2 O , itoia SoACanA , App Gch 2 , (5) 2 M.AMuweti, Nhan . asiamhr , Fooem 9 , 20) 2 R. 'Ali, . , d, RenL. LandF.ARulianF.Terrile, Gr a , Envir llu 1 , (20) 2 AlizarA. rns,E. rM.ARah, Y. Sandja, ansn , J - SustaiN 3 , 1 (2) 2 DFian N, .Shdin G, Vst , Eusian Soci 4 , 1 (20) 2 ITA Mal eries . , (IT AIbanNer 1) 2 G. ee, .

er , Am ociety f Agnoma oSce ciety f erica , (Mad, Wn. 198) 2 Gld twe. SU9fowinws. (Gld Cor. 20) 2 S.Chis, and H , Gmoog 47 , (2) 2 FAOH Coex . , 1 - 200 , (Ro 2) , 03001 (2018) MATEC Web of Conferences <https://doi.org/10.1051/matecconf/201822903001> 229 ICDM 2018 7 3 FAO , FAOLan d ter evelopenDn , (Ro , 1) 3 M.AKem, Sinh, Kond M.Imuu, Kai , InJ. vn. Tech 4 , 2 (20) 3 DBaize.

I, Par, 199) 3 Ali zar, HaCip kuamRIn0100 (DenI nmhm RI, 2) 3 NVey, SivalanandD.D ,
J. ydl 2 , (0) 3 R.ADIg, C. oi, .HCasey . GchetsmoimicaAdv 6 , (1999 3 S.Shi, Nar, . a hr ,
Elsevier. Amam , (thethland , 1) 3 M li, .SarrA ella, . iaccai, FavDSchererR. ebandE.D , so
Sci.t. vn 408 . (20 3 M. ei, . t, .Hich , ChGI 1 , (0) 3 H. Bru , Gl. d 7 , (1) , 03001 (2018)
MATEC Web of Conferences <https://doi.org/10.1051/matecconf/201822903001> 229
ICDM 2018 8

INTERNET SOURCES:

1% -

https://www.researchgate.net/profile/Konstantinos_Stamatiou/publication/232708154_Vaccination_Coverage_among_Health_Care_Workers_in_A_Greek_Hospital/links/09e41508c467ee6644000000.pdf